

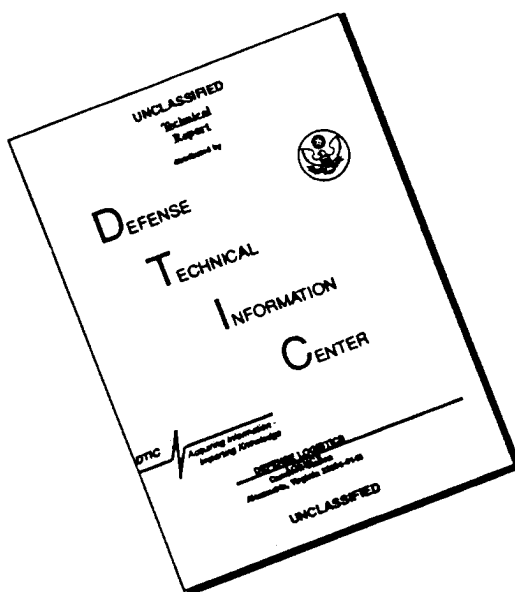
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| 4. TITLE AND SUBTITLE<br>RESEARCH PROPOSAL QUARTERLY STATUS REPORT  |  |   |  | 5. FUNDING NUMBERS<br>AFOSR-TR-95<br><br>0508       |  |
| 6. AUTHOR(S)<br>AIR FORCE OFFICE OF SCIENTIFIC RESEARCH   |  |   |  |   |  |
| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)<br>AIR FORCE OFFICE OF SCIENTIFIC RESEARCH/XPT<br>110 DUNCAN AVENUE SUITE B116<br>BOLLING AFB DC 20332-0001  |  |   |  | 8. PERFORMING ORGANIZATION<br>REPORT NUMBER         |  |
| 9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)<br>AIR FORCE OFFICE OF SCIENTIFIC RESEARCH/XPT<br>110 DUNCAN AVENUE SUITE B116<br>BOLLING AFB DC 20332-0001   |  |   |  | 10. SPONSORING / MONITORING<br>AGENCY REPORT NUMBER |  |
| 11. SUPPLEMENTARY NOTES   |  |   |  |   |  |
| 12a. DISTRIBUTION / AVAILABILITY STATEMENT<br>APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED   |  |   |  | 12b. DISTRIBUTION CODE                              |  |
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| 14. SUBJECT TERMS   |  |   |  | 15. NUMBER OF PAGES                                 |  |
|   |  |   |  | 16. PRICE CODE                                      |  |
| 17. SECURITY CLASSIFICATION<br>OF REPORT<br>UNCL  |  | 18. SECURITY CLASSIFICATION<br>OF THIS PAGE<br>UNCL |  | 19. SECURITY CLASSIFICATION<br>OF ABSTRACT<br>UNCL  |  |
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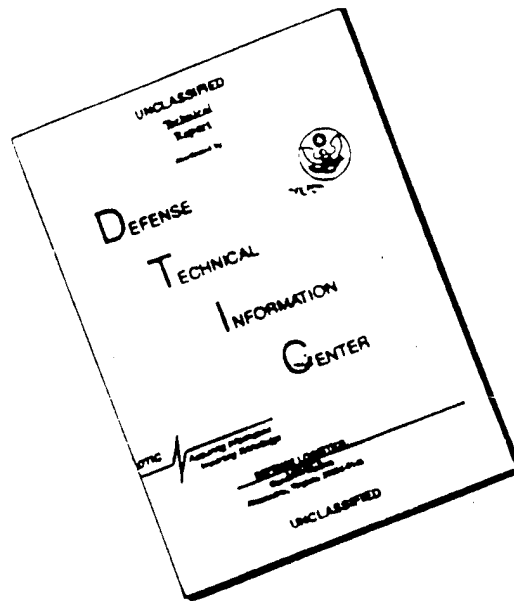
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## INTRODUCTION

The Research Proposal Quarterly Status Report is published quarterly (March, June, September, and December) by the Air Force Office of Scientific Research (AFOSR). It lists all the research proposals received by AFOSR during the past six months along with the action taken (Initiated, Declined or Withdrawn on each report.

The report is divided into two parts. The Institution Index lists proposals alphabetically by institution. This is followed by a more detailed listing by Directorate, and by Program Manager within the Directorate.

## PURPOSE

This report is designed to inform other Government sponsoring agencies of the proposals received by the AFOSR and the action taken on these proposals. Readers must keep in mind that declined proposals should not necessarily be considered as scientifically unacceptable; many declinations result from a lack of funds or as a result of special programmatic emphasis.

## AFOSR MISSION

The Air Force Office of Scientific Research (AFOSR) is the single manager of the Air Force Defense Research Sciences Program (Program Element 61102F) and the primary Air Force agency for the extramural support of fundamental scientific research. To sponsor and sustain basic research and ensure access to research results in support of the Air Force goals of control and maximum utilization of air and space. The AFOSR is organized under the Director, Science and Technology, Air Force Materiel Command.

AFOSR awards grants and contracts for research in areas of science relevant to the needs of the Air Force. Research is selected for support from proposals received in response to the Broad Agency Announcement originating from scientists investigating problems involving the search for new knowledge and the expansion of scientific principles. Selection is on the basis of scientific potential for improving Air Force operational capabilities, originality, significance of science, the qualification of the principal investigators, and the reasonableness of the proposed budget.

# KEY TO READING THE DATA

Title - The title of the research proposal.

Institution - The organization, (e.g., college/university, company) at which the research will be conducted.

Investigator - The Principal Investigators proposing the research.

Type - N indicates a new research effort.

- R indicates a continuation of an ongoing research effort.

Months - The duration of the research proposal.

Received - The month and year in which the AFOSR received the proposal.

Amount - The funds requested of the AFOSR for support of the research proposal.

Status - A = ACCEPTED indicates that the review has been completed and the proposal recommended for funding.

- D = DECLINED indicates the proposal has been reviewed but will not be funded by the AFOSR.

- BLANK SPACE = indicates the proposal is being reviewed.

- W = WITHDRAWN indicates that the proposal submitted was removed from further consideration at the proposer's request.

Program Manager - The AFOSR scientific staff member assigned the responsibility for the technical evaluation of the proposal.

Proposal # - An AFOSR Directorate assigned control number to uniquely identify the research proposal.

Initiate - The proposal has been recommended to the AFOSR Directorate of Contracts for the amount and duration.

Start Date - The recommended date for commencement of the research.

Total Amount - The estimated number of dollars recommended for support of the research effort; the actual amount is subject to negotiation.



## **PART 1**

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|   | Mohney       | Suzanne       | A      | 95-NE-270 | A      | WITT       |
| Pennsylvania State University           | Rosenbaum    | David         |        | 95-NL-203 |        | TANGNEY    |
|   | Singh        | Jogender      |        | 95-NA-217 | A      | PECHENIK   |
| Perdix Incorp                           | Zhang        | Xumu          | E      | 95-NL-214 | D      | LEE        |
|   | Arnett       | Kenneth       |        | 95-NE-284 |        | SCHLOSSBER |
| Physical Optics Corporation             | Spariosu     | Kalin         | A      | 95-NL-190 |        | HADDAD     |
|   | Floodas      | Christodoulos | R      | 95-NM-310 |        | GLASSMAN   |
| Princeton University                    | Forrest      | Stephen       |        | 95-NE-290 |        | POMRENKE   |
|   |              |               |        | 95-NE-291 |        | POMRENKE   |
| Princeton University Plasma Physics Lab | Jahn         | Robert        | S      | 95-NA-265 |        | BIRKAN     |
|   | Prucnal      | Paul          |        | 95-NE-263 | A      | CRAIG      |
| Prometheus Inc                          | Warren       | Nathan        | S      | 95-NE-261 | A      | CRAIG      |
|   | Fisch        | Nathaniel     | J      | 95-NA-250 |        | BIRKAN     |
| Purdue Research Foundation              | An           | Myoung        |        | 95-NM-243 | A      | JACOB      |
|   | Gunshor      | Robert        | L      | 95-NE-273 |        | POMRENKE   |
| Purdue University                       | Heister      | Stephen       | D      | 95-NA-267 |        | BIRKAN     |
|   | Mellock      | Michael       | R      | 95-NE-226 |        | WITT       |
| RVM Scientific Inc                      | Skalton      | Robert        | E      | 95-NA-284 |        | WU         |
|   | Weiner       | Andrew        | M      | 95-NE-258 | A      | CRAIG      |
| Rensselaer Polytechnic Institute        | Mustacich    | Andrew        | M      | 95-NE-265 | A      | CRAIG      |
|   | Coie         | Robert        | M      | 95-NL-197 | A      | LEE        |
| Rockwell International, Science Center  | Malmuth      | Julian        | D      | 95-NM-266 |        | NACHMAN    |
|   | Marshall     | N             | D      | 95-NM-291 |        | NACHMAN    |
| Rome Air Development Center             | Kowalchuk    | D B           | P      | 95-NA-295 |        | PECHENIK   |
|   | Knight       | Nicholas      |        | 95-NI-038 | A      | ZARBO      |
| SRI International                       | Williams     | Doyle         | R      | 95-NA-206 |        | SAKELL     |
|   | Govindan     | Leah          |        | 95-NL-211 |        | BERMAN     |
| Silicon Mountain Design Inc             | Gardner      | T R           | W      | 95-NA-305 |        | MCMICHAEL  |
|   | Tao          | David         |        | 95-NM-224 | D      | WAKSMAN    |
| Southern Illinois University            | Sioshans     | Ronsjia       |        | 95-NA-233 |        | LEWIS      |
|   | Spacshar     | Piran         |        | 95-NA-317 | D      | WARD       |
| Stanford University                     | Gurbin       | Peter         | N      | 95-NA-302 |        | MCMICHAEL  |
|   | Prasad       | Paul          |        | 95-NA-306 |        | MCMICHAEL  |
| State University of New York            | Son          | Surajit       |        | 95-NA-304 |        | MCMICHAEL  |
|   |              |               |        | 95-NL-188 | A      | LEE        |
|   |              |               |        | 95-NA-223 | M      | LEWIS      |
|   |              |               |        | 95-NA-224 |        | LEWIS      |



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| INSTITUTION                         | INVESTIGATOR | FIRST NAME  | MIDDLE | PROPOSAL  | STATUS | PM NAME   |
|-------------------------------------|--------------|-------------|--------|-----------|--------|-----------|
| Univ of Colorado                    | Vasudevan    | Vijay       | K      | 95-NA-205 |        | WARD      |
|                                     | Douglas      | Kenneth     |        | 95-NE-279 |        | WEINSTOCK |
|                                     | Farhat       | Charbel     | H      | 95-NA-209 |        | SAKELL    |
|                                     | George       | Steven      | M      | 95-NL-194 |        | BERMAN    |
|                                     | Kassoy       | David       | R      | 95-NA-259 |        | BIRKAN    |
|                                     | Mahalingam   | Shankar     |        | 95-NA-249 |        | BIRKAN    |
|                                     | McCormick    | Stephen     | F      | 95-NM-285 |        | SCHRECK   |
|                                     | Morozova     | Nina        | D      | 95-NE-276 | A      | CRAIG     |
|                                     | Sauer        | John        | R      | 95-NE-239 |        | CRAIG     |
|                                     | Wagner       | Kelvin      | H      | 95-NE-228 | A      | CRAIG     |
| Univ of Connecticut                 | Jordan       | Eric        | H      | 95-NA-196 |        | JONES     |
|                                     | Lynds        | Lahmer      |        | 95-NL-179 |        | BERMAN    |
|                                     | Hallinan     | Kevin       | P      | 95-NA-300 |        | MCMICHAEL |
|                                     | Karpur       | Prasanna    |        | 95-NA-199 |        | JONES     |
| Univ of Delaware                    | Brilli       | Thomas      | B      | 95-NA-260 |        | BIRKAN    |
|                                     | Hatfka       | Raphael     | T      | 95-NM-257 |        | GLASSMAN  |
| Univ of Florida                     | Reynolds     | John        | R      | 95-NC-003 |        | LEE       |
|                                     |              |             |        | 95-NL-220 |        | LEE       |
| Univ of Georgia                     | Sankar       | Bhavani     | V      | 95-NA-244 |        | JONES     |
|                                     | Billard      | Lynne       |        | 95-NM-293 | D      | SJOGREN   |
|                                     | Doze         | George      |        | 95-NA-312 |        | MCMICHAEL |
|                                     | Jeong        | Jinhee      |        | 95-NM-306 |        | SCHRECK   |
|                                     | Pei          | Shin-Shem   | S      | 95-NE-230 |        | CRAIG     |
|                                     | Ravi-Chandar | K           |        | 95-NA-201 |        | JONES     |
|                                     | Virk         | Davinder    |        | 95-NA-311 |        | MCMICHAEL |
|                                     | Zimin        | Valery      |        | 95-NM-303 |        | NACHMAN   |
|                                     | Buckmaster   | John        | D      | 95-NM-308 |        | NACHMAN   |
|                                     | Burton       | Rodney      | L      | 95-NA-262 |        | BIRKAN    |
| Univ of Illinois - Chicago          | Wiley        | George      | H      | 95-NA-248 |        | BIRKAN    |
|                                     | Aggarwal     | Suresh      | K      | 95-NA-280 |        | BIRKAN    |
| Univ of Illinois - Urbana Champaign | Gotsis       | John        |        | 95-NA-241 |        | JONES     |
|                                     | Moriarty     | Robert      | M      | 95-NL-178 |        | BERMAN    |
|                                     | Ting         | T C T       |        | 95-NA-286 |        | WU        |
|                                     | Wolfson      | Quri        | J      | 95-NM-292 |        | LUGINBUHL |
|                                     | Brady        | David       |        | 95-NE-225 |        | CRAIG     |
|                                     |              |             |        | 95-NE-249 | A      | CRAIG     |
|                                     |              | M.          | Q      | 95-NA-254 |        | BIRKAN    |
|                                     |              | Rodney      | L      | 95-NA-265 |        | BIRKAN    |
|                                     |              | Amitava     |        | 95-NM-267 |        | NACHMAN   |
|                                     |              | David       | T      | 95-NL-205 |        | KOZUMBO   |
| Univ of Iowa                        | Gibson       | Mark        | A      | 95-NL-229 |        | BERMAN    |
|                                     | Young        | Eyed        | H      | 95-NM-309 |        | JACOBS    |
| Univ of Maryland                    | Abad         |             |        | 95-NE-242 | A      | CRAIG     |
|                                     | Reganidis    | Mario       |        | 95-NE-275 | A      | CRAIG     |
| Univ of Maryland, Baltimore Campus  | Weiss        | Isaac       |        | 95-NM-251 | A      | WAKSMAN   |
|                                     | Choe         | H. Jonathan |        | 95-NE-231 |        | CRAIG     |

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|---------------------------------------|--------------|-----------------|--------|-----------|--------|------------|
| Univ of Massachusetts                 |              | Aura            |        | 95-NM-262 |        | LUGINBUHL  |
| Univ of Michigan                      |              | Anthony         | M      | 95-NM-221 | A      | JACOBS     |
|                                       |              | I-Wei           |        | 95-NM-253 |        | JACOBS     |
|                                       |              | Alec            |        | 95-NA-214 | A      | PECHENIK   |
|                                       |              | Sylvan          |        | 95-NA-274 |        | BIRKAN     |
|                                       |              | Peter           |        | 95-NL-183 |        | TANGNEY    |
|                                       |              | Allen           | P      | 95-NA-213 | A      | PECHENIK   |
| Univ of Minnesota                     |              | Henry           | M      | 95-NE-286 |        | WEINSTOCK  |
| Univ of Missouri                      |              | Bruce           | W      | 95-NA-219 | A      | PECHENIK   |
|                                       |              | C. Randall      | M      | 95-NM-294 |        | LUGINBUHL  |
| Univ of New Mexico                    |              | Christina       | A      | 95-NI-036 | A      | HART       |
| Univ of North Carolina                |              | Thomas          | W      | 95-NL-227 |        | TANGNEY    |
| Univ of Oregon                        |              |                 |        | 95-NE-236 | A      | CRAIG      |
|                                       |              |                 |        | 95-NE-256 | A      | CRAIG      |
| Univ of Pennsylvania                  |              | Haim            | H      | 95-NA-303 |        | MCMICHAEL  |
|                                       |              | Pedro           |        | 95-NM-279 |        | NACHMAN    |
|                                       |              | Gregory         | A      | 95-NL-177 |        | BERMAN     |
|                                       |              | Alan            | J      | 95-NL-225 |        | KOZUMBO    |
| Univ of Pittsburgh                    |              | Pranab          | K      | 95-NA-200 |        | JONES      |
| Univ of Puerto Rico                   |              | Michael         | A      | 95-NA-268 |        | BIRKAN     |
| Univ of Southern Cal -- School of Eng |              | Joseph          | A      | 95-NA-246 |        | BIRKAN     |
|                                       |              | E. Phillip      |        | 95-NA-247 |        | BIRKAN     |
|                                       |              | Paul            |        | 95-NM-297 |        | NACHMAN    |
| Univ of Southern California           |              | Larry           | R      | 95-NL-187 | A      | LEE        |
|                                       |              | R               |        | 95-NM-281 | A      | WAKSMAN    |
|                                       |              | Alexander       | A      | 95-NE-281 | A      | CRAIG      |
|                                       |              | William         | H      | 95-NL-183 | A      | LEE        |
|                                       |              | Curt            |        | 95-NL-199 |        | BERMAN     |
|                                       |              | Joe             | S      | 95-NA-294 |        | SAKELL     |
| Univ of Tennessee                     |              | L.              | A      | 95-NE-285 |        | KELLEY     |
|                                       |              | Dennis          |        | 95-NA-269 |        | BIRKAN     |
| Univ of Tennessee / Space Institute   |              |                 |        | 95-NA-279 |        | BIRKAN     |
|                                       |              | Ray             | T      | 95-NL-186 | A      | LEE        |
| Univ of Texas at Austin               |              | Carl            | W      | 95-NL-207 | A      | LEE        |
| Univ of Texas, El Paso                |              | K               | S      | 95-NA-230 |        | WARD       |
| Univ of Utah                          |              | H               | N      | 95-NA-282 |        | WARD       |
| Univ of Virginia                      |              | Thomas          | F      | 95-NE-289 |        | KELLEY     |
| Univ of Washington                    |              | William Randall |        | 95-NE-235 | A      | CRAIG      |
|                                       |              | William         |        | 95-NE-247 | A      | CRAIG      |
|                                       |              | Thomas          | R      | 95-NA-277 |        | BIRKAN     |
|                                       |              | Uri             | R      | 95-NM-283 |        | SCHRECK    |
| Univ of Wisconsin                     |              | Carolyn         | R      | 95-NA-215 | A      | PECHENIK   |
|                                       |              | Dan             |        | 95-NE-233 |        | CRAIG      |
|                                       |              | Steven          | E      | 95-NL-175 |        | KOZUMBO    |
|                                       |              | Frank           | L      | 95-NL-176 |        | KOZUMBO    |
| Universal Energy Systems Inc          |              | Rabi            | S      | 95-NE-262 | D      | KELLEY     |
| University of Idaho                   |              | F               | H      | 95-NA-297 |        | WARD       |
| University of Puerto Rico             |              | F.              | M      | 95-NE-233 | A      | SCHLOSSBER |



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| INSTITUTION                            | INVESTIGATOR | FIRST NAME | MIDDLE | PROPOSAL  | STATUS | PM NAME   |
|--|--------------|------------|--------|-----------|--------|-----------|
| Utah State University                  | Swain        | Gres       | M      | 95-NL-195 |        | DELONG    |
| Vanderbilt University                  | Sotipanovits | Janos      |        | 95-NM-261 |        | LUGINBUHL |
| Virginia Polytechnic Inst & State Univ | Gurdal       | Zafer      |        | 95-NM-258 |        | GLASSMAN  |
|  | Ns           | Wing-fai   |        | 95-NA-309 |        | MCMICHAEL |
|  | Ward         | Tom        |        | 95-NL-222 |        | LEE       |
| Washington State University            | Ding         | J.         | L      | 95-NA-239 |        | JONES     |
|  | Gupta        | Y          | M      | 95-NA-231 |        | LEWIS     |
| Western Michigan University            | Sauk         | William    | A      | 95-NA-228 |        | LEWIS     |
| Worcester Polytechnic Institute        | Lipton       | Robert     |        | 95-NM-287 |        | NACHMAN   |
| Wright Lab                             | Chuang       | Fred       |        | 95-NM-305 | A      | GLASSMAN  |
|  | Demuts       | Edvins     |        | 95-NI-034 | A      | ZARBO     |
|  | Drozdoski    | Walter     |        | 95-NL-202 | A      | LEE       |
|  | Miracle      | Daniel     | B      | 95-NI-033 | A      | ZARBO     |
| Wright Materials Research              | Tan          | Seng       | C      | 95-NA-194 |        | JONES     |
| Wright State University                | Gerve        | M. Paul    |        | 95-NL-180 |        | KOZUMBO   |
| Yale University                        | Gelernter    | David      |        | 95-NM-269 |        | LUGINBUHL |
|  | Povirk       | Gary       | L      | 95-NA-193 |        | JONES     |
| nWave                                  | Divakar      | M.         | P      | 95-NM-239 | D      | JACOBS    |

## **PART 2**

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TITLE  
DEVELOPMENT OF SHORT-WAVELENGTH LASER BASED ON SECOND HARMONIC  
GENERATION IN VERTICAL CAVITY SURFACE EMITTING LASER  
HELIX-PACKED LABORATORIES, JAPAN

INVESTIGATOR

YASUDA  
Norihide

TYPE/MONTHS  
RECEIVED  
AMOUNT  
N 12  
01/06/95  
\$25,000

STATUS  
PROGRAM MANAGER  
PROPOSAL #  
YAKURA  
95-EX-001

INITIATE  
START DATE  
TOT AMT

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| TITLE<br>INITIAL COUNT-0<br>INSTITUTION   | INVESTIGATOR       | TYPE/MONTHS<br>RECEIVED<br>AMOUNT | STATUS<br>PROGRAM MANAGER<br>PROPOSAL # | INITIATE<br>START DATE<br>TOT AMT |
|---|--------------------|-----------------------------------|---|-----------------------------------|
| CURLING AND PROCESS CONTROL OF COMPOSITE MICROSTRUCTURES<br>Yale University   | Pavirk<br>Gery     | N 36<br>13/04/95<br>\$180,000     | JONES<br>95-NA-193                      |                                   |
| PROGRESSIVE FAILURE IN LAMINATED COMPOSITES DUE TO MECHANICAL<br>LOADING AND ENVIRONMENTAL EFFECTS<br>Wright Materials Research | Tan<br>Seng        | N 36<br>13/04/95<br>\$9,947,257   | JONES<br>95-NA-194                      |                                   |
| HOMOGENIZATION-BASED DESIGN OF POLYMER MATRIX COMPOSITES FOR<br>AEROSPACE APPLICATIONS<br>Iowa State University                 | Swan<br>Colby      | N 12<br>13/04/95<br>\$393,592     | JONES<br>95-NA-195                      |                                   |
| MEASUREMENT OF STRAINS AT INTERIOR POINTS USING SYNCHROTRON<br>RADIATION<br>Univ of Connecticut                                 | Jordan<br>Eric     | N 36<br>13/04/95<br>\$253,687     | JONES<br>95-NA-196                      |                                   |
| INFRARED INTERFEROMETERS FOR FAILURE CHARACTERIZATION &<br>DIAGNOSTICS<br>Auburn University                                     | Tippur<br>Hazreesh | N 36<br>13/04/95<br>\$183,462     | JONES<br>95-NA-197                      |                                   |
| FRACTURE PREDICTION METHODOLOGY FOR CERAMIC MATRIX COMPOSITE<br>MATERIALS<br>Syracuse University                                | Davidson<br>Barry  | N 36<br>13/04/95<br>\$250,000     | JONES<br>95-NA-198                      |                                   |
| MECHANICS OF ELASTIC STRESS WAVES FOR DAMAGE ASSESSMENT OF<br>ADVANCED COMPOSITES<br>Univ of Dayton                             | Kardur<br>Prasanna | N 36<br>14/04/95<br>\$398,296     | JONES<br>95-NA-199                      |                                   |
| SURFACE ROUGHENING - A NEW APPROACH TO FATIGUE<br>Univ of Puerto Rico   | Mazumdar<br>Pranab | N 24<br>14/04/95<br>\$170,662     | JONES<br>95-NA-200                      |                                   |
| MIXED-MODE FRACTURE OF SOLID PROPELLANTS<br>Univ of Houston   | Revi-Chander<br>K  | N 24<br>14/04/95<br>\$69,770      | JONES<br>95-NA-201                      |                                   |

| TITLE<br>TITLE AGENCY<br>INSTITUTION  | INVESTIGATOR | TYPE/MONTHS<br>RECEIVED<br>AMOUNT | STATUS<br>PROGRAM MANAGER<br>PROPOSAL # | INITIATE<br>START DATE<br>TOT AMT |
|---|--------------|-----------------------------------|---|-----------------------------------|
| SMART MULTI-SENSOR MODELING AND EXPERIMENTAL CORRELATION FOR<br>CORROSION IN AN AGING AIRCRAFT<br>JET Propulsion Laboratory | Ben-Cohen    | N 36<br>14/04/95<br>\$360,000     | JONES<br>95-NA-202                      |                                   |
| KELVIN-HELMHOLTZ INSTABILITY WITH PHASE CHANGES   | Lin          | N 36<br>18/04/95<br>\$167,852     | TISHKOFF<br>95-NA-203                   |                                   |
| Clarkson University   |              |                                   |   |                                   |
| SOLIDIFICATION AND PROCESSING SCIENCE OF GAMMA TITANIUM-ALUMINIDE<br>ALLOYS   | Overfelt     | N 60<br>18/04/95<br>\$3,748,243   | WARD<br>95-NA-204                       |                                   |
| Auburn University   |              |                                   |   |                                   |
| AN INTEGRATED PROGRAM OF BASIC RESEARCH MANUFACTURING AND<br>APPLICATION OF GAMMA   | Vasudevan    | N 60<br>18/04/95<br>\$3,537,504   | WARD<br>95-NA-205                       |                                   |
| Univ of Cincinnati  |              |                                   |   |                                   |
| LARGE EDDY SIMULATION OF THREE-DIMENSIONAL HIGH SPEED AERODYNAMIC<br>FLOWS  | Knight       | N 36<br>16/05/95<br>\$480,787     | SAKELL<br>95-NA-206                     |                                   |
| Rutgers, The State University   |              |                                   |   |                                   |
| FREE STREAM TURBULENCE AND SURFACE ROUGHNESS EFFECTS ON TURBINE<br>BLADE HEAT TRANSFER                                      | Gorla        | N 36<br>17/05/95<br>\$318,950     | MCMICHAEL<br>95-NA-207                  |                                   |
| Cleveland State Univ-Coll of Engineering  |              |                                   |   |                                   |
| IMPLICIT CFD SOLVERS FOR UNSTEADY COUPLED FLUID-STRUCTURE<br>INTERACTIONS   | Keyes        | N 36<br>17/05/95<br>\$178,503     | SAKELL<br>95-NA-208                     |                                   |
| Old Dominion University   |              |                                   |   |                                   |
| NUMERICAL SIMULATION OF THREE DIMENSIONAL HIGH S DYNAMIC MANEUVERS<br>OF A COMPLETE FLEXIBLE AIRCRAFT CONFIGURATION         | Farhat       | N 36<br>17/05/95<br>\$483,730     | SAKELL<br>95-NA-209                     |                                   |
| Univ of Colorado  |              |                                   |   |                                   |
| AN EXPERIMENTAL STUDY OF VORTEX INJECTION WITHIN HIGH-SPEED INLET   | Garrison     | N 36<br>17/05/95<br>\$333,141     | SAKELL<br>95-NA-210                     |                                   |
| Louisiana State University  |              |                                   |   |                                   |

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|---|---|-----------------------------------|---|------------------------------------|
| SUPPORT OF THE U S NATIONAL COMMITTEE FOR ROCK MECHANICS  | MANI                                    | N 12<br>17/05/95<br>\$20,000      | LEWIS<br>95-NA-211                      |                                    |
| National Academy of Sciences  | Mahadevan                               |                                   |   |                                    |
| AN INNOVATIVE TURBINE BLADE COOLING TECHNOLOGY & MICRO/MINIATURE<br>HEAT PIPES FOR TURBINE AND ELECTRONICS COOLING                | Cao<br>Florida International University | N 36<br>17/05/95<br>\$379,967     | MCMICHAEL<br>95-NA-212                  |                                    |
| DURIP95 ADVANCED PULSED LASER DEPOSITION SYSTEM WITH IN-SITU<br>ELLIPSO-METRIC DIAGNOSTICS  | Pronko<br>Univ of Michigan              | N 12<br>18/05/95<br>\$101,186     | A<br>PECHENIK<br>95-NA-213              | \$101,186<br>01/08/95<br>\$101,186 |
| DURIP PROPOSAL FOR AN ION-ASSISTED SPUTTERING DEPOSITION SYSTEM<br>FOR NANO-MODULATED OXIDE COATINGS                              | Chen<br>Univ of Michigan                | N 12<br>18/05/95<br>\$270,000     | A<br>PECHENIK<br>95-NA-214              | \$270,000<br>01/08/95<br>\$270,000 |
| NANO-MODULATED CERAMIC COATING DEPOSITION SYSTEM  | Sproul<br>Northwestern University       | N 12<br>18/05/95<br>\$350,000     | A<br>PECHENIK<br>95-NA-215              | \$350,000<br>01/08/95<br>\$350,000 |
| DURIP95 AN INTELLIGENT REACTOR FOR SPUTTER DEPOSITION OF<br>TRANSPARATION-TOUGHENING OXIDE NANOLAMINATES CERAMIC COATINGS         | Aita<br>Univ of Wisconsin               | N 12<br>18/05/95<br>\$130,000     | A<br>PECHENIK<br>95-NA-216              | \$130,000<br>01/08/95<br>\$130,000 |
| DURIP95 EQUIPMENT SUPPORTING RESEARCH TO ADVANCE THE STATE-OF-THE-<br>ART OF VAPOR PHASE MULTI-LAYER CERAMIC/METALLIC COATINGS BY | Singh<br>Pennsylvania State University  | N 12<br>22/05/95<br>\$101,009     | A<br>PECHENIK<br>95-NA-217              | \$101,009<br>01/08/95<br>\$101,009 |
| DURIP95 INSTANTINATION FOR PROCESSING AND CHARACTERIZATION OF<br>NANO-MODULATED CERAMICS  | Litvinenko<br>Duke University           | N 12<br>22/05/95<br>\$299,000     | A<br>PECHENIK<br>95-NA-218              | \$299,000<br>01/08/95<br>\$299,000 |
| DURIP95 NANO-MODULATED CERAMIC PROTECTIVE FILMS ON GLASS<br>SUBSTRATES  | White<br>Univ of Missouri               | N 12<br>22/05/95<br>\$67,200      | A<br>PECHENIK<br>95-NA-219              | \$67,200<br>01/08/95<br>\$67,200   |

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|--|--------------|-----------------------------------|---|-----------------------------------|
| HYPERSTANDING SUPERSONIC OPEN CAVITY FLOW PHYSICS  | Paul         | N 36<br>22/05/95<br>\$165,417     | SAKELL<br>95-NA-220                     |                                   |
| ADVANCED THERMO-MICROMECHANICAL DAMAGE MECHANICS MODELING OF<br>AIRFIELD CONCRETE PAVEMENTS                        | Jiann-Wen    | N 24<br>22/05/95<br>\$145,236     | LEWIS<br>95-NA-221                      |                                   |
| ADVANCED TECHNIQUES FOR 3-D RESISTIVITY TOMOGRAPHY   | F            | N 36<br>22/05/95<br>\$343,000     | LEWIS<br>95-NA-222                      |                                   |
| PHYSICS OF GRANULAR MEDIA  | Sen          | N 36<br>22/05/95<br>\$329,939     | W<br>LEWIS<br>95-NA-223                 |                                   |
| PHYSICS OF GRANULAR MEDIA  | Sen          | N 36<br>22/05/95<br>\$329,939     | LEWIS<br>95-NA-224                      |                                   |
| NOVEL STRUCTURES INDUCED BY EXTERNAL FIELDS IN CONCENTRATED<br>MAGNETIC SUSPENSIONS                                | Denis        | N 36<br>23/05/95<br>\$276,000     | LEWIS<br>95-NA-225                      |                                   |
| APPLICATION OF PULSE DETONATION TECHNOLOGY TO DETONATION-DRIVEN<br>HIGH-ENTHALPY AERODYNAMIC SIMULATION FACILITIES | John         | N 10<br>24/05/95<br>\$255,439     | SAKELL<br>95-NA-226                     |                                   |
| MICROSCOPIC THEORY OF TURBULENCE   | Amador       | N 24<br>30/05/95<br>\$514,800     | MCMICHAEL<br>95-NA-227                  |                                   |
| SPR AND ELECTRICAL RESISTIVITY STUDIES OF THE ANOMALOUS<br>CONDUCTIVITY ASSOCIATED WITH HYDROCARBON PURES.         | William      | N 36<br>30/05/95<br>\$545,018     | LEWIS<br>95-NA-228                      |                                   |

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| SPRAY MODELLING BASED UPON PHYSICALLY ACCURATE MODELS AT ALL<br>SCALES<br>Jet Propulsion Laboratory   | Collen<br>Josette       | N 04<br>05/06/95<br>\$200,000     | A<br>TISHKOFF<br>95-NA-229              | \$300,000<br>15/06/95<br>\$300,000   |
| FAIQURE OF BETA TITANIUM ALLOYS<br>Univ of Utah   | Ravichandran<br>K       | N 36<br>05/06/95<br>\$300,152     | WARD<br>95-NA-230                       |                                      |
| EXPERIMENTAL DEVELOPMENTS TO EXAMINE SHOCK INDUCED CHEMICAL<br>CHANGES IN ORGANIC COMPOUNDS DISPERSED IN GEOLOGIC MEDIA<br>Washington State University            | Gupta<br>Y              | N 12<br>05/06/95<br>\$49,977      | LEWIS<br>95-NA-231                      |                                      |
| A QUANTITATIVE STUDY OF POROSITY OF EVOLUTION IN METALS SUBJECTED<br>TO MULTI-AXIAL STRESS STATES.<br>Ohio State Univ Research Foundation                         | Gilat<br>Amos           | N 48<br>06/06/95<br>\$230,257     | JONES<br>95-NA-232                      |                                      |
| PARTICULATE MECHANICS OF ELECTORHEOLOGICAL FLUIDS<br>Southern Illinois University   | Tao<br>Rongjia          | N 36<br>06/06/95<br>\$270,556     | LEWIS<br>95-NA-233                      |                                      |
| SECPHYSICAL IMAGING OF NAPL CONTAMINATION IN UNCONSOLIDATED<br>POROUS MEDIA<br>Univ of California, Berkeley   | Geller<br>Jill          | N 24<br>06/06/95<br>\$301,316     | LEWIS<br>95-NA-234                      |                                      |
| CHARACTERIZATION OF MINERAL-SOLUTION INTERFACE PROPERTIES & FABRIC<br>BY ELECTRICAL DISPERSION --INFLUENCE OF ADSORPTION & DIFFUSION<br>Univ of California, Davis | Kandiah<br>asrulanandan | N 36<br>06/06/95<br>\$360,000     | LEWIS<br>95-NA-235                      |                                      |
| FUNDAMENTAL STUDIES OF COLLOIDALLY PROCESSED COMPOSITES<br>Michigan State University  | Crimp<br>Melissa        | N 36<br>06/06/95<br>\$311,257     | LEWIS<br>95-NA-236                      |                                      |
| CONTRACTOR WORKSHOP SUPPORT<br>Air Force Office of Scientific Research  | Wu<br>Spencer           | N 48<br>09/06/95<br>\$400,000     | A<br>JONES<br>95-NA-237                 | \$1,000,000<br>01/10/95<br>\$400,000 |



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| GRANDULAR MATERIALS STUDIED BY WPI<br>Lowell Institute  | ELIACHI          | N 24<br>09/06/95<br>\$61,327      | LEWIS<br>95-NA-238                      |                                   |
| MIXED MODE CREEP AND CREEP FRACTURE OF A LOW-THERMAL-EXPANSION,<br>HIGH STRENGTH SUPERALLOY<br>Washington State University                  | J. Ding          | N 36<br>09/06/95<br>\$304,926     | JONES<br>95-NA-239                      |                                   |
| CYCLIC DAMAGE IN HIGH TEMPERATURE TITANIUM COMPOSITES<br>Louisiana State University   | George Voyiadjis | N 36<br>09/06/95<br>\$329,937     | JONES<br>95-NA-240                      |                                   |
| FRACTURE PHENOMENA AND INTERFACE PROPERTIES OF COMPOSITES WITH<br>LONG ALIGNED FIBERS: A FUNDAMENTAL APPROACH<br>Univ of Illinois - Chicago | John Botsis      | N 36<br>09/06/95<br>\$329,875     | JONES<br>95-NA-241                      |                                   |
| "CORROSION & FATIGUE OF ALUMINUM ALLOYS: CHEMISTRY,<br>MICROMECHANICS AND RELIABILITY"<br>Lehigh University                                 | Robert Wei       | N 18<br>12/06/95<br>\$200,000     | JONES<br>95-NA-242                      |                                   |
| "PREDICTION OF GROWTH OF THREE-DIMENSIONAL CRACKS: COMBINED<br>EXPERIMENTAL AND THEORETICAL STUDY"<br>Northwestern University               | I. Daniel        | N 36<br>12/06/95<br>\$713,718     | JONES<br>95-NA-243                      |                                   |
| FRACTURE MECHANICS OF STITCHED TEXTILE COMPOSITES<br>Univ of Florida  | Shavani Sankar   | N 36<br>12/06/95<br>\$283,089     | JONES<br>95-NA-244                      |                                   |
| "DAMAGE MECHANISMS AND ACCUMULATION IN UNIDIRECTIONAL AND<br>CROSSPLY CERAMIC-MATRIX COMPOSITE LAMINATES"<br>Northwestern University        | I Daniel         | N 36<br>12/06/95<br>\$405,554     | JONES<br>95-NA-245                      |                                   |
| A STUDY OF ATOMIC AND MOLECULAR COLLISIONS<br>Univ of Southern Cal -- School of Eng   | Kunc Joseph      | N 36<br>12/06/95<br>\$273,223     | BIRKAN<br>95-NA-246                     |                                   |

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| AN INITIAL DEMONSTRATION OF LABORATORY FLOW FACILITIES FOR INVESTIGATING PHENOMENA ASSOCIATED WITH HIGH ALTITUDE EXHAUST | Wurtz<br>Univ of Southern Cal -- School of Eng            | N 12<br>12/06/95<br>\$140,970     | BIRKAN<br>95-NA-247                     |                                   |
| A NOVEL THRUSTER FOR SATELLITE CONTROL   | Miley<br>Univ of Illinois                                 | N 36<br>12/06/95<br>\$294,678     | BIRKAN<br>95-NA-248                     |                                   |
| DIRECT NUMERICAL SIMULATION OF COMBUSTION-FLUID-ACOUSTIC PROCESSES IN MODEL SOLID ROCKET MOTORS                          | Shankar<br>Univ of Colorado                               | N 36<br>12/06/95<br>\$182,882     | BIRKAN<br>95-NA-249                     |                                   |
| SCALING LAWS FOR HALL THRUSTER PERFORMANCE   | Fisch<br>Princeton University Plasma Physics Lab          | N 36<br>12/06/95<br>\$276,600     | BIRKAN<br>95-NA-250                     |                                   |
| SCALE-DOWN EFFECTS ON ION THRUSTERS AND STATIONARY PLASMA THRUSTERS  | deBoer<br>Cornell University                              | N 36<br>12/06/95<br>\$313,517     | BIRKAN<br>95-NA-251                     |                                   |
| ELECTROSTATIC PROPULSION FOR LOW POWER SATELLITES  | Bruby<br>Busok Co, Inc.                                   | N 36<br>12/06/95<br>\$498,682     | BIRKAN<br>95-NA-252                     |                                   |
| BASIC SCALING STUDIES OF ELECTRIC THRUSTERS  | Martinez-Sanchez<br>Massachusetts Institute of Technology | N 36<br>12/06/95<br>\$579,271     | BIRKAN<br>95-NA-253                     |                                   |
| HIGH SPECTRAL RESOLUTION COMBUSTION GAS AND PARTICLE RADIATION FOR ROCKET PLUMES   | Brewster<br>Univ of Illinois - Urbana Champaign           | N 36<br>14/06/95<br>\$210,460     | BIRKAN<br>95-NA-254                     |                                   |
| COMBUSTION OF ALUMINUM AGGLOMERATES IN SOLID PROPELLANTS   | Sackstead<br>Brigham Young University                     | N 36<br>14/06/95<br>\$219,310     | BIRKAN<br>95-NA-255                     |                                   |

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| DIFFERENTIAL CROSS SECTIONS FOR X-RAY AND KRYPTON ION-ATOM COLLISIONS<br>Aerospace Corporation  | Johnson      | N 36<br>14/06/95<br>\$187,000 | BIRKAN<br>95-NA-256               |                             |
| EXPERIMENTAL INVESTIGATION OF SMALL SCALE RESISTOJETS AND ARCJETS<br>Aerospace Corporation  | Belting      | N 36<br>14/06/95<br>\$269,000 | BIRKAN<br>95-NA-257               |                             |
| AN EXPERIMENTAL STUDY OF SIZE-DEPENDENT PLASMA PHENOMENA IN LOW POWER ION THRUSTERS FOR SMALL SATELLITE PROPULSION<br>Aerospace Corporation | Crofton      | N 36<br>14/06/95<br>\$350,556 | BIRKAN<br>95-NA-258               |                             |
| NONLINEAR CO-EXISTING ROTATIONAL-ACOUSTIC PROCESSES IN SOLID ROCKET MOTORS<br>Univ of Colorado  | Kessey       | N 36<br>14/06/95<br>\$421,258 | BIRKAN<br>95-NA-259               |                             |
| CHEMICAL MECHANISMS AT THE BURNING SURFACE<br>Univ of Delaware  | Grill        | N 36<br>14/06/95<br>\$327,368 | BIRKAN<br>95-NA-260               |                             |
| MONTI CARLO ANALYSIS OF NONEQUILIBRIUM IONIZED FLOWS<br>Cornell University  | Soyd         | N 36<br>14/06/95<br>\$297,965 | BIRKAN<br>95-NA-261               |                             |
| EVAPORATIVE HEATING AND ACCELERATION PROCESSES IN LIQUID-FED PULSED PLASMA MICROTHRUSTERS<br>Univ of Illinois                               | Burton       | N 36<br>14/06/95<br>\$352,792 | BIRKAN<br>95-NA-262               |                             |
| ELECTRON COLLISION DATA FOR HYPERSONIC SIGNATURE CHARACTERIZATION<br>California Institute of Technology                                     | McKoy        | N 48<br>14/06/95<br>\$351,470 | BIRKAN<br>95-NA-263               |                             |
| INVESTIGATION OF ACTIVE CONTROL OF COMBUSTION INSTABILITIES IN LIQUID PROPELLANT ROCKET MOTORS<br>Georgia Institute of Tech                 | Zinn         | N 36<br>14/06/95<br>\$367,390 | BIRKAN<br>95-NA-264               |                             |

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| PRIME CONTRACT<br>INVESTIGATION   |              |                                   |   |                                   |
| INVESTIGATION OF PLASMA PROCESSES FOR PERFORMANCE OPTIMIZATION OF<br>LOW POWER ARCADE THRUSTERS       | Eurion       | N 36<br>14/06/95<br>\$427,195     | BIRKAN<br>95-NA-265                     |                                   |
| Univ of Illinois - Urbana Champaign   | Rodney       |                                   |   |                                   |
| CRITICAL PLASMA PROCESSES IN LOW POWER HALL MICROTHRUSTERS<br>INTENDED FOR SMALL SATELLITE PROPULSION | Jahn         | N 36<br>14/06/95<br>\$347,229     | BIRKAN<br>95-NA-266                     |                                   |
| Princeton University  | Robert       |                                   |   |                                   |
| MODELING PRIMARY ATOMIZATION PROCESSES  | Heister      | N 36<br>14/06/95<br>\$191,878     | BIRKAN<br>95-NA-267                     |                                   |
| Purdue Research Foundation  | Stephen      |                                   |   |                                   |
| DEVELOPMENT OF A NOVEL COMPOCT POSITIVE-NEGATIVE ION THRUSTER<br>POMI                                 | Gruntman     | N 24<br>14/06/95<br>\$177,862     | BIRKAN<br>95-NA-268                     |                                   |
| Univ of Southern Cal -- School of Eng   | Michael      |                                   |   |                                   |
| CASCADE APC STUDIES OF NONEQUILIBRIUM HYDROGEN/NITROGEN PLASMA<br>PROPELLANTS                         | Keefer       | N 36<br>14/06/95<br>\$301,489     | BIRKAN<br>95-NA-269                     |                                   |
| Univ of Tennessee / Space Institute   | Dennis       |                                   |   |                                   |
| MODELING NONEQUILIBRIUM RADIATION IN HIGH ALTITUDE PLUMES   | Boyd         | N 36<br>14/06/95<br>\$151,769     | BIRKAN<br>95-NA-270                     |                                   |
| Cornell University  | Iain         |                                   |   |                                   |
| MONTI CARLO MODELING OF LOW-POWER ELECTROTHERMAL THRUSTERS  | Boyd         | N 36<br>14/06/95<br>\$151,769     | BIRKAN<br>95-NA-271                     |                                   |
| Cornell University  | Iain         |                                   |   |                                   |
| MODELING AND ACTIVE CONTROL OF NONLINEAR UNSTEADY MOTIONS IN<br>COMBUSTION CHAMBERS                   | Gulick       | N 36<br>14/06/95<br>\$227,889     | BIRKAN<br>95-NA-272                     |                                   |
| California Institute of Technology  | Fred         |                                   |   |                                   |
| NUMERICAL MODELING OF MICRO ARCADE THRUSTERS  | Breuer       | N 36<br>14/06/95<br>\$226,936     | BIRKAN<br>95-NA-273                     |                                   |
| Massachusetts Institute of Technology   | Kenneth      |                                   |   |                                   |

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| DEVELOPMENT OF A LOW-POWER CLOSED-DRIFT BALL THRUSTER FOR SMALL SATELLITES<br>UNIV of Michigan  | Gallitono<br>Alec   | N 36<br>14/06/95<br>\$399,892     | BIRKAN<br>95-NA-274                     |                                   |
| FUNDAMENTALS OF ARCJET THRUSTER OPERATION - SCALING FROM LOW TO HIGH POWERS<br>Ohio State Univ Research Foundation                                      | Subramaniam<br>Vish | N 36<br>14/06/95<br>\$186,235     | BIRKAN<br>95-NA-275                     |                                   |
| ENERGY TRANSFER PROCESSES IN THE PRODUCTION OF EXCITED STATES IN REACTING ROCKET FLOWS<br>Ohio State Univ Research Foundation                           | Rich<br>Joseph      | N 48<br>14/06/95<br>\$496,114     | BIRKAN<br>95-NA-276                     |                                   |
| ENHANCEMENT OF THE BALL THRUSTER THROUGH ADVANCED COMPUTATIONAL AND EXPERIMENTAL METHODS<br>Univ of Washington  | Jarboe<br>Thomas    | N 36<br>14/06/95<br>\$254,343     | BIRKAN<br>95-NA-277                     |                                   |
| TRANSPORT PROCESSES IN PULSED PLASMA THRUSTERS<br>Ohio State University   | Turchi<br>Peter     | N 24<br>14/06/95<br>\$144,853     | BIRKAN<br>95-NA-278                     |                                   |
| EXPERIMENTAL AND ANALYTICAL STUDIES OF UV MOLECULAR RADIATION FROM HIGH ALTITUDE PLUMES AND REENTRY BODIES<br>Univ of Tennessee / Space Institute       | Keefer<br>Dennis    | N 36<br>14/06/95<br>\$301,276     | BIRKAN<br>95-NA-279                     |                                   |
| NUMERICAL SIMULATIONS OF ACOUSTIC-VORTEX AND DROPLET-VORTEX INTERACTIONS RELEVANT TO LIQUID PROPELLANT ROCKET INSTABILITY<br>Univ of Illinois - Chicago | Assareal<br>Suresh  | N 36<br>14/06/95<br>\$181,692     | BIRKAN<br>95-NA-280                     |                                   |
| LAMINATED METAL COMPOSITE: CREEP BEHAVIOR AND FORMING STUDIES<br>Univ of California, Davis  | Mukherjee<br>Aniya  | N 36<br>14/06/95<br>\$466,981     | WARD<br>95-NA-281                       |                                   |
| NOVEL SYNTHESIS OF AFFORDABLE MULTILAYERED MATERIALS FOR HIGH-TEMPERATURE GAS TURBINE ENGINES<br>UNIV of Virginia                                       | S Wacley<br>H       | N 24<br>14/06/95<br>\$507,761     | WARD<br>95-NA-282                       |                                   |

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| EXPERIMENTAL STUDY OF SUPERSONIC FLOWS OVER AN ELLIPTIC CONE  | Samir         | N 36<br>16/06/95<br>\$304,119     | SAKELL<br>95-NA-283                     |                                   |
| Ohio State Univ Research Foundation   | Mo            |                                   |   |                                   |
| DESIGNING FOR INFORMATION QUALITY IN ACTIVE STRUCTURAL SYSTEMS  | Skelton       | N 36<br>16/06/95<br>\$399,792     | WU 95-NA-284                            |                                   |
| Purdue Research Foundation  | Robert        |                                   |   |                                   |
| VIBRATION DAMPING OF FLAPS AND AIRFOILS   | Howe          | N 24<br>16/06/95<br>\$182,938     | WU 95-NA-285                            |                                   |
| Boston University   | Michael       |                                   |   |                                   |
| STRESS LOCALIZATION IN ANISOTROPIC MATERIALS AND COMPOSITES   | Ting          | N 36<br>16/06/95<br>\$226,743     | WU 95-NA-286                            |                                   |
| Univ of Illinois - Chicago  | T C T         |                                   |   |                                   |
| HOLOGRAPHIC FLOW VISUALIZATION OF HYPERSONIC BOUNDARY LAYER INSTABILITIES                                   | Chokani       | N 24<br>16/06/95<br>\$142,330     | SAKELL<br>95-NA-287                     |                                   |
| North Carolina State University   | Ndaona        |                                   |   |                                   |
| TURBULENT SPOT CHARACTERIZATION AND THE MODELLING OF TRANSITIONAL HEAT TRANSFER IN TURBINES                 | LaGraff       | N 36<br>16/06/95<br>\$292,146     | MCMICHAEL<br>95-NA-288                  |                                   |
| Syracuse University   | John          |                                   |   |                                   |
| SCALAR MIXING CONTROL IN FORCED SHEAR LAYERS  | Koochesfahani | N 36<br>16/06/95<br>\$278,209     | MCMICHAEL<br>95-NA-289                  |                                   |
| Michigan State University   | Manoochehr    |                                   |   |                                   |
| STRESS ANALYSIS AND DAMAGE MODELING OF TEXTILE COMPOSITES   | Posen         | N 36<br>19/06/95<br>\$294,740     | JONES<br>95-NA-290                      |                                   |
| Materials Sciences Corp   | Walter        |                                   |   |                                   |
| PREDICTION, MEASUREMENT AND SUPPRESSION OF NARROW-BAND VELOCITY FLUCTUATIONS ABOVE A FLIGHTER CONFIGURATION | Komerath      | N 36<br>20/06/95<br>\$449,214     | SAKELL<br>95-NA-291                     |                                   |
| Georgia Tech Research Corporation   | Narayanan     |                                   |   |                                   |

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| NEW ANALYSIS METHOD FOR DESIGN APPLICATIONS OF STRUCTURE-<br>ACOUSTIC COUPLED SYSTEM<br>UNIV OF CINCINNATI   | KIM<br>Jay        | N 36<br>20/06/95<br>\$129,461     | WU 95-NA-292                            |                                   |
| LARGE-EDDY SIMULATION OF WEDGE-GENERATED SHOCK/BOUNDARY LAYERS<br>INTERACTIONS<br>North Carolina State University  | Edwards<br>Jack   | N 36<br>20/06/95<br>\$170,420     | SAKELL 95-NA-293                        |                                   |
| NEWS: A NON-LINEAR ELEMENT UPSTREAM WAKE STATEMENT FOR<br>CONFIGURATION AEROTHERMODYNAMICS<br>Univ of Tennessee  | Iannelli<br>Joe   | N 38<br>20/06/95<br>\$81,968      | SAKELL 95-NA-294                        |                                   |
| INTERPHASE BLENDING IN HIGH TEMPERATURE CERAMIC COMPOSITES<br>Rockwell International, Science Center   | Marshall<br>D B   | N 36<br>20/06/95<br>\$599,000     | PECHENIK 95-NA-295                      |                                   |
| SYNTHESIS OF CERAMICS FROM SOLUTIONS: FUNCTIONALLY GRADED<br>COMPOSITES, NANOCOMPOSITES & SINGLE CRYSTAL THIN FILMS<br>Univ of California, Santa Barbara | Lange<br>Fred     | N 24<br>20/06/95<br>\$404,960     | PECHENIK 95-NA-296                      |                                   |
| NANOSTRUCTURED LAMINATES FOR ELEVATED TEMPERATURE APPLICATIONS<br>University of Idaho  | Froes<br>F        | N 36<br>22/06/95<br>\$406,100     | WARD 95-NA-297                          |                                   |
| COMPUTATIONAL AND EXPERIMENTAL STUDY OF SCRAMJET LOSED-MIXER FUEL-<br>INJECTION STRUT<br>Syracuse University   | Gang<br>Thong     | N 36<br>22/06/95<br>\$374,007     | SAKELL 95-NA-298                        |                                   |
| CHARACTERIZATION OF LAWS OF PRECISION IN THE CONTEXT OF ENGINE<br>BLADE DYNAMICS<br>Strategic Technologies Inc   | Srinivasan<br>A   | N 48<br>22/06/95<br>\$356,679     | WU 95-NA-299                            |                                   |
| ELECTROHYDRODYNAMIC CONTROL OF THIN FILM EVAPORATIVE HEAT TRANSFER<br>IN MICRO HEAT PIPE ARRAYS<br>Univ of Dayton  | Hallinan<br>Kevin | N 36<br>22/06/95<br>\$248,883     | MCMICHAEL 95-NA-300                     |                                   |

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|---|--|--------------|---------------------------------|-----------------------------------|-----------------------------|
| STRUCTURE AND CONTROL OF THE WALL REGION IN A TURBULENT BOUNDARY LAYER                        | Cornell University                     | Lumley       | N 36<br>22/06/95<br>\$439,711   | MCMICHAEL<br>95-NA-301            |                             |
| VALIDATION OF THE TURBULENT DISSIPATION TRANSPORT EQUATION USING SIMULATION DATA              | Stanford University                    | Bradshaw     | N 36<br>22/06/95<br>\$266,195   | MCMICHAEL<br>95-NA-302            |                             |
| FEEDBACK CONTROL TO DELAY OR ADVANCE LOSS OF STABILITY IN BOUNDARY LAYER FLOW                 | Univ of Pennsylvania                   | Bau          | N 36<br>23/06/95<br>\$285,565   | MCMICHAEL<br>95-NA-303            |                             |
| MODELING HEAT TRANSPORT IN TURBULENT FLOWS  | Stanford University                    | Durbin       | N 36<br>23/06/95<br>\$391,535   | MCMICHAEL<br>95-NA-304            |                             |
| TIP LEAKAGE FLOW MECHANISMS AND THEIR RELATION TO STALL                                       | Scientific Research Associates, Inc.   | Govindan     | N 24<br>23/06/95<br>\$199,793   | MCMICHAEL<br>95-NA-305            |                             |
| ROTOR TIP LEAKAGE--EXPERIMENTS AND MODELING   | Stanford University                    | Bradshaw     | N 24<br>23/06/95<br>\$266,585   | MCMICHAEL<br>95-NA-306            |                             |
| THERMAL CONTROL IN AERODYNAMIC APPLICATIONS USING NEW FLUIDIC TECHNOLOGIES                    | Georgia Tech Research Corporation      | Smith        | N 36<br>23/06/95<br>\$495,219   | MCMICHAEL<br>95-NA-307            |                             |
| MICRO HEAT EXCHANGER USING MEMS IMPINGING JETS AND VACUUM-INSULATED SKIN                      | California Institute of Technology     | Tai          | N 36<br>23/06/95<br>\$1,021,274 | MCMICHAEL<br>95-NA-308            |                             |
| EFFECTS OF SHOCK AND TURBULENCE ON THE FILM COOLING HEAT TRANSFER IN TRANSONIC FLOWING BLADES | Virginia Polytechnic Inst & State Univ | Ng           | N 36<br>23/06/95<br>\$474,000   | MCMICHAEL<br>95-NA-309            |                             |



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|---|--------------|-----------------------------------|---|-----------------------------------|
| INCORPORATING DYNAMICAL EFFECTS IN DESIGN OF NEXT GENERATION<br>TURBOMACHINERY<br>Cornell University                                | LUDLEY       | N 36<br>23/06/95<br>\$439,711     | MCMICHAEL<br>95-NA-310                  |                                   |
| DIRECT NUMERICAL SIMULATIONS OF COMPRESSIBLE VORTEX RINGS AND<br>CIRCULAR JETS<br>Univ of Houston                                   | VIRK         | N 36<br>23/06/95<br>\$402,854     | MCMICHAEL<br>95-NA-311                  |                                   |
| DYNAMICAL MODELING AND NONLINEAR CONTROL OF TRANSITIONAL AND<br>TURBULENT OPEN FLOWS<br>Univ of Houston                             | George       | N 36<br>23/06/95<br>\$474,786     | MCMICHAEL<br>95-NA-312                  |                                   |
| (SEIR-95) SINGLE CRYSTAL FIBERS OF YAG FOR COMPOSITE STRENGTHENING<br>Laser Genics Corporation                                      | Schlecht     | N 06<br>26/06/95<br>\$79,972      | D<br>WARD<br>95-NA-313                  |                                   |
| (SEIR-95) LOW COST STABLE PRECURSORS FOR PRODUCTION OF YAG FIBERS<br>TDA Research, Inc.   | Cook         | N 06<br>26/06/95<br>\$80,000      | D<br>WARD<br>95-NA-314                  |                                   |
| (SEIR-95) THE DEVELOPMENT OF INNOVATIVE PROCESSING TO PRODUCE<br>MULTIFILAMENT TIC FIBERS<br>Materials & Electrochemical Resch Corp | Withers      | N 06<br>26/06/95<br>\$80,000      | D<br>WARD<br>95-NA-315                  |                                   |
| (SEIR-95) CONTROLLED SHEAR STRENGTH OXIDATION-RESISTANT<br>INTERFACIAL COATINGS<br>Ulramet  | Fortini      | N 06<br>26/06/95<br>\$79,436      | D<br>WARD<br>95-NA-316                  |                                   |
| (SEIR AF95-008) FUNCTIONALLY GRADIENT MATERIAL COATING FOR FIBERS<br>Spire Corporation  | Sioshensi    | N 06<br>26/06/95<br>\$79,857      | D<br>WARD<br>95-NA-317                  |                                   |
| (SEIR AF95-009) PRODUCTION AND COATING OF COMPOSITE REINFORCING<br>FIBERS<br>Greene Inc. Research & Development Inc                 | Onishi       | N 06<br>26/06/95<br>\$79,733      | D<br>WARD<br>95-NA-318                  |                                   |

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TITLE  
FIVE COURT-D  
INSTITUTION

INVESTIGATOR

ELECTRONIC PROPERTY CONTROL THROUGH REDOX BEHAVIOR OF CONJUGATED P  
GLYMER  
UNIV OF FLORIDA

Reynolds

John

TYPE/MONTHS  
RECEIVED  
AMOUNT  
R 36  
12/06/95  
\$473,687

STATUS  
PROGRAM MANAGER  
PROPOSAL #

LEE  
95-NC-003

INITIATE  
START DATE  
TOT AMT

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|---|-------------------------------------|--------------|-------------------------------|-----------------------------------|------------------------------------|
| ULTRA-FAST OPTICAL SIGNAL ENCODING AND ANALYSIS FOR COMMUNICATIONS AND DATA FUSION NETWORKS             | Univ of Illinois - Urbana Champaign | Grady        | N 36<br>04/04/95<br>\$458,498 | CRAIG<br>95-NE-225                |                                    |
| DIELECTRIC PROPERTIES OF ORDERED AND DISORDERED PARTICULATES IN SE                                      | Mellich                             | Michael      | N 36<br>04/04/95<br>\$467,243 | WITT<br>95-NE-226                 |                                    |
| READ/WRITE MODULE FOR HIGH CAPACITY MEMORY DISK (CARPA-IRP)   | Hok                                 | Fai          | N 24<br>04/04/95<br>\$749,700 | CRAIG<br>95-NE-227                |                                    |
| Spatial Soliton Interactions for Photonic Switching   | Univ of Colorado                    | Wagner       | N 36<br>11/04/95<br>\$360,000 | CRAIG<br>95-NE-228                |                                    |
| RESEARCH SUPPORT FOR THE LABORATORY FOR LIGHTWAVE TECHNOLOGY "NOVEL FIBERS AND PHOTONIC DEVICES"        | Brown University                    | Horse        | R 36<br>11/04/95<br>\$714,476 | SCHLOSSBER<br>95-NE-229           |                                    |
| OPTIMIZATION OF LARGE TWO-DIMENSIONAL ARRAYS OF MULTIPLE-QUANTUM-Well Fabry-Pérot Modulators at 1.064um | Univ of Houston                     | Pei          | N 24<br>12/04/95<br>\$534,843 | CRAIG<br>95-NE-230                |                                    |
| PHOTONIC ATM FRONT-END PROCESSOR  | Univ of Maryland, Baltimore Campus  | Choa         | N 36<br>12/04/95<br>\$749,786 | A<br>CRAIG<br>95-NE-231           | \$190,881<br>01/07/95<br>\$749,786 |
| MATERIALS FOR HIGH-TEMPERATURE SPECTRAL HOLE BURNING OPTICAL STORAGE                                    | City College - CUNY                 | Robert       | N 36<br>17/04/95<br>\$572,800 | A<br>CRAIG<br>95-NE-232           | \$187,243<br>01/09/95<br>\$572,578 |
| EQUILIBRIUM AND DYNAMIC PROPERTIES OF LIQUID CRYSTALS CONFINED IN COMPLEX MATRICES                      | University of Puerto Rico           | F.           | N 36<br>19/04/95<br>\$599,319 | A<br>SCHLOSSBER<br>95-NE-233      | \$100,000<br>01/09/95<br>\$599,259 |

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| TITLE<br>FUNDING AGENCY<br>INSTITUTION   | INVESTIGATOR               | TYPE/MONTHS<br>RECEIVED<br>AMOUNT | STATUS<br>PROGRAM MANAGER<br>PROPOSAL # | INITIATE<br>START DATE<br>TOT AMT  |
|--|----------------------------|-----------------------------------|---|------------------------------------|
| ASERT95 (CMDO) CASCADED SPATIAL SOLUTIONS FOR NETWORK ROUTING<br>Univ of Central Florida   | Stegeman<br>George         | N 36<br>20/04/95<br>\$149,999     | A<br>CRAIG<br>95-NE-234                 | \$149,346<br>01/07/95<br>\$149,999 |
| ASERT95 (CMDO) COHERENT TRANSIENT PROCESSORS AND MATERIALS<br>Univ of Washington   | Babbitt<br>William Randall | N 36<br>20/04/95<br>\$184,690     | A<br>CRAIG<br>95-NE-235                 | \$183,555<br>01/07/95<br>\$184,690 |
| ASERT95 (CMDO) ROUTING OF OPTICAL DATA VIA SPATIAL-SPECTRAL<br>HOLOGRAPHIC DEVICES<br>Univ of Oregon   | Mossberg<br>Thomas         | N 36<br>20/04/95<br>\$118,766     | A<br>CRAIG<br>95-NE-236                 | \$118,202<br>01/07/95<br>\$118,766 |
| ASERT-95 (CMDO) MODELING & SIMULATION OF MULTIMAVELENGTH CONVERSI<br>ON IN SEMICOND LASER OPTICAL AMPLIFIERS FOR LOGIC, SWITCHING, COMM<br>Georgia Institute of Tech | Slumenthal<br>Daniel       | N 36<br>21/04/95<br>\$75,198      | A<br>CRAIG<br>95-NE-237                 | \$75,198<br>01/07/95<br>\$75,198   |
| INTERSUBBAND QUANTUM-BOX SEMICONDUCTOR LASERS<br>Univ of Wisconsin   | Botez<br>Dan               | N 36<br>25/04/95<br>\$469,970     | CRAIG<br>95-NE-238                      |                                    |
| CAASERT-95(CMDO) TIME-OF-FLIGHT SYNCHRONIZATION TECHNIQUES<br>Univ of Colorado   | Sauer<br>John              | N 36<br>25/04/95<br>\$117,944     | A<br>CRAIG<br>95-NE-239                 | \$117,124<br>01/07/95<br>\$117,944 |
| HETERODYNE TECHNIQUES IN TWO DIMENSIONAL IMAGE PROCESSING<br>National Science Foundation   | Harvey<br>Albert           | N 12<br>27/04/95<br>\$25,000      | A<br>CRAIG<br>95-NE-241                 | \$25,000<br>01/05/95<br>\$25,000   |
| T-GATE LASERS FOR SPECTRAL PROCESSING<br>Univ of Maryland  | Desanais<br>Mario          | N 12<br>27/04/95<br>\$60,800      | A<br>CRAIG<br>95-NE-242                 | \$60,800<br>01/05/95<br>\$60,800   |
| ASERT95 (CMDO) SPATIAL SOLUTION INTERACTIONS FOR PHOTONIC<br>SWITCHING FOR DATA BUSION<br>Univ of Colorado   | Wagner<br>Kelvin           | N 36<br>28/04/95<br>\$138,402     | A<br>CRAIG<br>95-NE-243                 | \$137,958<br>01/07/95<br>\$138,402 |

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|--|--------------------|-----------------------------------|---|------------------------------------|
| THE APPLICATION OF FREE-SPACE OPTICAL INTERCONNECTS TO HIGH PERFORMANCE COMMUNICATION DECODING<br>George Mason University  | Henry<br>Michael   | N 36<br>01/05/95<br>\$230,195     | CRAIG<br>95-NE-244                      |                                    |
| PHOTONIC IMAGING NETWORKS<br>Univ of California, San Diego   | Fainman<br>Y.      | N 60<br>02/05/95<br>\$2,691,407   | W<br>CRAIG<br>95-NE-245                 |                                    |
| SYMPOSIUM ON OPTICAL PROPERTIES OF III-V AND II-VI COMPOUND SEMICONDUCTORS AND THEIR HETEROSTRUCTURES<br>Emory University  | Sajaj<br>Krishan   | N 12<br>08/05/95<br>\$8,000       | WITT<br>95-NE-246                       |                                    |
| COURIP-95) COHERENT TRANSIENT TRUE TIME DELAYS<br>Univ of Washington   | Sabbitt<br>William | N 12<br>09/05/95<br>\$55,386      | A<br>CRAIG<br>95-NE-247                 | \$55,386<br>01/09/95<br>\$55,386   |
| COURIP-95) ACCURATE MEASUREMENT/CONTROL OF OPTICAL PHASE FOR TIME & COHERENCE DOMAIN COMMUNICATIONS AND SPACE-TIME INTERFEROMETRY<br>Univ of Illinois - Urbana Champaign | Brady<br>David     | N 12<br>09/05/95<br>\$75,670      | A<br>CRAIG<br>95-NE-248                 | \$75,670<br>01/09/95<br>\$75,670   |
| COURIP-95) SPECTROSCOPY OF MATERIALS FOR PERSISTENT SPECTRAL HOLE BURNING<br>Montana State University  | Cone<br>Rufus      | N 12<br>09/05/95<br>\$176,218     | A<br>CRAIG<br>95-NE-249                 | \$176,218<br>01/09/95<br>\$176,218 |
| COURIP-95) OPTICAL FREQUENCY SHIFTERS AND PHASE DETECTORS BASED ON NOVEL SEMICONDUCTOR STRUCTURES<br>Bowling Green University  | Ding<br>Yujie      | N 12<br>09/05/95<br>\$60,000      | A<br>CRAIG<br>95-NE-250                 | \$60,000<br>01/09/95<br>\$60,000   |
| COURIP-95) NANO-KELVIN COOLING OF DENSE ATOMS FOR AN ULTRA-STABLE FOUNTAIN ATOMIC CLOCK<br>Massachusetts Institute of Technology   | Ezekiel<br>Shaoul  | N 12<br>09/05/95<br>\$132,400     | A<br>CRAIG<br>95-NE-251                 | \$132,400<br>01/09/95<br>\$132,400 |
| COURIP-95) ROBUST QUANTUM AND CLASSICAL CRYPTOGRAPHY FOR SECURITY AND PRIVACY IN PHOTONIC IMAGING NETWORK<br>Univ of California, San Diego                               | Fainman<br>Y.      | N 12<br>09/05/95<br>\$199,000     | A<br>CRAIG<br>95-NE-252                 | \$199,000<br>01/09/95<br>\$199,000 |

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|--|-----------------|-----------------------------------|---|------------------------------------|
| (COURIP-95) FREQUENCY-MODULATION SPECTROSCOPY AND PHASE-SENSITIVE<br>DETECTION OF PROTON SOURCES FOR HOLE-BURNING OPTICAL STORAGE<br>City University of New York | Hardy           | N 12<br>09/05/95<br>\$215,096     | A<br>CRAIG<br>95-NE-253                 | \$215,096<br>01/09/95<br>\$215,095 |
| (COURIP-95) RESEARCH INSTRUMENTATION FOR INVESTIGATIONS IN ATOMIC,<br>MOLECULAR AND OPTICAL PHYSICS<br>Florida International University                          | Kenneth         | N 12<br>09/05/95<br>\$87,025      | A<br>CRAIG<br>95-NE-254                 | \$87,025<br>01/09/95<br>\$87,025   |
| (COURIP-95) INSTRUMENTATION FOR THE ACCURATE MEASUREMENT AND<br>CONTROL OF OPTICAL PHASE<br>Duke University Medical Center                                       | Madey           | N 12<br>09/05/95<br>\$995,300     | CRAIG<br>95-NE-255                      |                                    |
| (COURIP-95) INSTRUMENTATION FOR THE DEVELOPMENT OF TIME-DOMAIN<br>OPTICAL STORAGE PROCESSING AND ROUTING TECHNOLOGIES<br>Univ of Oregon                          | Thomas Mossberg | N 12<br>09/05/95<br>\$166,140     | A<br>CRAIG<br>95-NE-256                 | \$166,140<br>01/09/95<br>\$166,140 |
| (COURIP-95) SOLUTION-LOCKING FOR STABLE PARAMETRIC SOURCES<br>Univ of Central Florida  | Stegeman        | N 12<br>09/05/95<br>\$90,000      | A<br>CRAIG<br>95-NE-257                 | \$90,000<br>01/09/95<br>\$90,000   |
| (COURIP-95) FEMTOSECOND LASER SYSTEM FOR RESEARCH ON HIGH-SPEED<br>OPTICAL TRANSMULTIPLYING AND CODING<br>Purdue Research Foundation                             | Weiner          | N 12<br>09/05/95<br>\$121,333     | A<br>CRAIG<br>95-NE-258                 | \$121,333<br>01/09/95<br>\$121,333 |
| (COURIP-95) A UV MAGNETO-OPTICAL KERR (MOK) MICROSCOPE<br>Ohio State University  | Higen           | N 12<br>09/05/95<br>\$55,876      | A<br>CRAIG<br>95-NE-259                 | \$55,876<br>01/09/95<br>\$55,876   |
| (COURIP-95) DIODE-PUMPED OPTICAL PARAMETRIC OSCILLATOR AND OPTICAL<br>FREQUENCY COMB GENERATION AT 1.5UM<br>Massachusetts Institute of Technology                | Wong            | N 12<br>09/05/95<br>\$93,450      | A<br>CRAIG<br>95-NE-260                 | \$93,450<br>01/09/95<br>\$93,450   |
| (COURIP-95) INSTRUMENTATION FOR PHASE MODULATION, STABILIZATION,<br>AND CONTROL IN TERAHERTZ PER SECOND OPTICAL NETWORKS<br>Princeton University                 | Warren          | N 12<br>09/05/95<br>\$220,000     | A<br>CRAIG<br>95-NE-261                 | \$220,000<br>01/09/95<br>\$220,000 |

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|---|------------------------|---------------------------------|-----------------------------------|--------------------------------------|
| DIAMOND-LIKE CARBON COATINGS AND SURFACE MODIFICATIONS BY ION BEAM DEPOSITION<br>Universal Energy Systems Inc                         | Rabi                   | N 39<br>09/05/95<br>\$554,544   | D<br>KELLEY<br>95-NE-262          | \$500,000<br>01/08/95<br>\$1,499,536 |
| (FRI-BM00) TERAHIT PER SECOND NETWORKS AND DEVICES FOR DATA FUSION<br>Princeton University  | Prucnal<br>Paul        | N 36<br>09/05/95<br>\$1,439,536 | A<br>CRAIG<br>95-NE-263           | \$500,000<br>01/08/95<br>\$1,499,536 |
| PHOTONIC IMAGING NETWORKS<br>Univ of California, San Diego  | Fainman<br>Y.          | N 60<br>10/05/95<br>\$2,646,807 | A<br>CRAIG<br>95-NE-264           | \$552,000<br>01/08/95<br>\$2,698,807 |
| SPECTRAL METHODS FOR HIGH-SPEED OPTICAL TRANSMULTIPLYING AND CODING<br>Purdue University  | Weiner<br>Andrew       | N 36<br>10/05/95<br>\$1,500,000 | A<br>CRAIG<br>95-NE-265           | \$500,000<br>15/09/95<br>\$1,500,000 |
| EPITAXIAL GROWTH OF METASTABLE GEI-XCX ALLOYS: EXPERIMENTAL AND THEORETICAL STUDIES<br>Michigan Technological University              | Krishnamurthy<br>Mohan | N 36<br>10/05/95<br>\$321,180   | POMRENKE<br>95-NE-266             |                                      |
| FRI-BM00 MULTI-WAVELENGTH OPTICAL CODE-DIVISION-MULTIPLYING BASED ONPASSIVE LINEAR UNITARY FILTERS<br>Univ of California, Los Angeles | Yablonoivich<br>Eli    | N 60<br>10/05/95<br>\$2,500,000 | A<br>CRAIG<br>95-NE-267           | \$500,000<br>01/08/95<br>\$2,500,000 |
| SILICON-BASED QUANTUM MOS TECHNOLOGY DEVELOPMENT<br>Texas Instruments Inc. Central Res Lab  | Seabaugh<br>Alan       | N 36<br>12/05/95<br>\$575,360   | A<br>WITT<br>95-NE-268            | \$0<br>15/09/95<br>\$3,961,808       |
| DEVELOPMENT AND APPLICATION OF HETEROJUNCTIONS FOR NANOELECTRONICS FOR SILICON<br>California Institute of Technology                  | McGill<br>T.           | N 36<br>12/05/95<br>\$1,584,454 | A<br>WITT<br>95-NE-269            | \$100,000<br>15/09/95<br>\$1,584,454 |
| THEORETICAL AND EXPERIMENTAL APPROACH TO DEVELOPING IMPROVED ELECTRICAL CONTACTS TO GaN<br>Pennsylvania State University              | Mohney<br>Suzanne      | N 36<br>12/05/95<br>\$400,000   | A<br>WITT<br>95-NE-270            | \$100,000<br>01/09/95<br>\$400,000   |

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|---|-----------------|-----------------------------------|---|--|
| MOE GROWN MITRIDES FOR HIGH TEMPERATURE ELECTRONICS USING<br>CONFORMAL SUBSTRATES<br>Georgia Institute of Tech                    | APRIL           | N 36<br>12/05/95<br>\$709,215     | A<br>WITT<br>95-NE-271                  | \$216,250<br>01/09/95<br>\$709,215     |
| RECONFIGURABLE NETWORK ROUTING WITH SPATIAL SOLITON CROSSBAR<br>SWITCHES<br>Univ of Central Florida                               | George Stegeman | N 36<br>15/05/95<br>\$450,006     | CRAIG<br>95-NE-272                      |  |
| II-VI/III-V HETEROJUNCTION LASERS<br>Purdue Research Foundation   | Robert Gunshor  | N 36<br>16/05/95<br>\$480,000     | POMRENKE<br>95-NE-273                   |  |
| SYMPOSIUM ON EVOLUTION OF EPITAXIAL STRUCTURE AND MORPHOLOGY<br>Materials Research Society  | John Ballance   | N 12<br>17/05/95<br>\$4,500       | POMRENKE<br>95-NE-274                   |  |
| CENCO DURIP) THE ALLIANCE FOR WDM LASER ARRAY APPLICATIONS<br>Univ of Maryland  | Mario Dagenais  | N 24<br>23/05/95<br>\$2,380,517   | A<br>CRAIG<br>95-NE-275                 | \$1,188,517<br>15/08/95<br>\$1,188,517 |
| CAD TOOLS FOR VCSEL MODELING<br>Univ of Colorado  | Nina Morozova   | N 24<br>24/05/95<br>\$310,196     | CRAIG<br>95-NE-276                      |  |
| FY95 DURIP WDM LASER SOURCES FOR THE DEFENSE UNIVERSITY (TESTBED)<br>RESEARCH INTERNET PROGRAM<br>Colorado State University       | Henry Temkin    | N 24<br>24/05/95<br>\$1,811,486   | A<br>CRAIG<br>95-NE-277                 | \$1,811,486<br>15/08/95<br>\$1,811,486 |
| ULTRA-SENSITIVE LASER-IONIZATION FOR REAL-TIME ANALYSIS-CONTROL<br>Superior Vacuum Technology, Inc                                | Peter Chow      | N 36<br>24/05/95<br>\$755,125     | A<br>WITT<br>95-NE-278                  | \$100,191<br>15/09/95<br>\$755,125     |
| PARALLEL FABRICATION AND ELECTRONIC CHARACTERIZATION OF NANO-<br>STRUCTURED AND NANOSTRUCTURED METAL SURFACES<br>Univ of Colorado | Kenneth Douglas | N 36<br>26/05/95<br>\$331,894     | WEINSTOCK<br>95-NE-279                  |  |



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TITLE  
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INSTITUTION

GENERATION OF LARGE VOLUME NEARLY IONIZED GASES AT ATMOSPHERIC  
PRESSURES  
Stevens Institute of Technology

Erich

INVESTIGATOR

BARKER  
95-NE-280

MULTISCALE PHOTONIC DATA FUSION NETWORKS AND THEIR INTERFACES

Univ of Southern California

Sawchuk

Alexander

N 36  
01/06/95  
\$1,501,551  
CRAIG  
95-NE-281

\$500,982  
01/08/95  
\$1,501,551

SBIR PHASE II DIAMOND-BASED THERMAL SENSING ELEMENT

Astralux

Qui

Chang

N 24  
05/06/95  
\$599,968  
POMRENKE  
95-NE-282

1996 INTERNATIONAL MEETING ON HOLE BURNING AND RELATED  
SPECTROSCOPIES: SCIENCE AND APPLICATIONS  
Iowa State University

Gerald

N 12  
06/06/95  
\$10,250  
CRAIG  
95-NE-283

DEVELOPMENT OF LIQUID CRYSTAL POLYMER OPTICAL FIBERS FOR NEAR  
FIELD SCANNING OPTICAL MICROSCOPY APPLICATIONS  
Perdix Incorp

Arnett

Kenneth

N 12  
06/06/95  
\$110,978  
SCHLOSSBER  
95-NE-284

NEGATIVE IONS IN MATERIALS PROCESSING PLASMAS

Univ of Tennessee

Pinnaduwage

L.

N 36  
08/06/95  
\$265,385  
KELLEY  
95-NE-285

HIGH TEMPERATURE SUPERCONDUCTING COMPOUNDS

Univ of Minnesota

Goldman

Allen

N 36  
09/06/95  
\$315,000  
WEINSTOCK  
95-NE-286

CLASSICAL AND QUANTUM PROPERTIES OF MAGNETIC NANOSTRUCTURES

Univ of California, Santa Barbara

Awschalom

David

N 36  
09/06/95  
\$300,000  
WEINSTOCK  
95-NE-287

ATOMISTIC AND AN INITIO CALCULATIONS OF TERNARY II-IV-V2  
SEMICONDUCTORS

Michigan Technological University

Pandey

Ravi

N 36  
14/06/95  
\$179,880  
POMRENKE  
95-NE-288

TYPE/MONTHS  
RECEIVED  
AMOUNT

STATUS  
PROGRAM MANAGER  
PROPOSAL #

INITIATE  
START DATE  
TOT AMT

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| TITLE<br>FUNDING<br>INSTITUTION  | INVESTIGATOR         | TYPE/MONTHS<br>RECEIVED<br>AMOUNT | STATUS<br>PROGRAM MANAGER<br>PROPOSAL # | INITIAL<br>START DATE<br>TOT AMT |
|--|----------------------|-----------------------------------|---|----------------------------------|
| STRUCTURE AND DYNAMICS OF EXCITED ATOMS<br>Univ of Virginia  | Sallagher<br>Thomas  | N 36<br>15/06/95<br>\$379,389     | KELLEY<br>95-NE-289                     |                                  |
| WORKSHOP ON CRYSTALLINE ORGANIC NANOSTRUCTURES AND PHENOMENA<br>Princeton University   | Forrest<br>Stephen   | N 06<br>19/06/95<br>\$23,350      | POMRENKE<br>95-NE-290                   |                                  |
| INVESTIGATIONS OF CRYSTALLINE ORGANIC NANOSTRUCTURES GROWN BY<br>ULTRAHIGH VACUUM AND VAPOR PHASE TECHNIQUES<br>Princeton University | Forrest<br>Stephen   | N 36<br>19/06/95<br>\$754,998     | POMRENKE<br>95-NE-291                   |                                  |
| EXTENSION OF UCLA USER PROGRAM IN MILLIMETER WAVE ELECTRONICS<br>Univ of California, Los Angeles                                     | Itoh<br>Tatsuo       | R 24<br>26/06/95<br>\$927,387     | A<br>SMITH<br>95-NE-292                 |                                  |
| SPIN-PHASE II GROWTH OF GAN SINGLE CRYSTAL BOULES<br>Astralux  | Laksono<br>Moeljanto | N 24<br>29/06/95<br>\$540,095     | POMRENKE<br>95-NE-293                   |                                  |

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| TITLE (CONT.)<br>INSTITUTION   | INVESTIGATOR | TYPE/MONTHS<br>RECEIVED<br>AMOUNT | STATUS<br>PROGRAM MANAGER<br>PROPOSAL # | INITIATE<br>START DATE<br>TOT AMT |
|--|--------------|-----------------------------------|---|-----------------------------------|
| FRONTIERS OF ENGINEERING<br>National Science Foundation  | Butcher      | N 12<br>06/04/95<br>\$80,000      | A<br>HART<br>95-NI-031                  | \$80,000<br>01/06/95<br>\$80,000  |
| ELECTRONIC COMMERCE APPROACH TO ADMINISTERING FEDERAL RESEARCH<br>GRANTS<br>DoD Washington & Services Director               | Christensen  | N 12<br>12/04/95<br>\$12,500      | A<br>HART<br>95-NI-032                  | \$12,500<br>01/05/95<br>\$12,500  |
| INVESTIGATION OF THE TRANSVERSE INTERFACE RESPONSE IN CONTINUOUSLY<br>REINFORCED TI-BASED COMPOSITES<br>Wright Lab           | Miracle      | N 12<br>28/04/95<br>\$41,959      | A<br>ZARBO<br>95-NI-033                 | \$5,359<br>22/08/95<br>\$5,359    |
| ENGINEER SCIENTIST EXCHANGE PROGRAM<br>Wright Lab  | Demuts       | N 06<br>02/05/95<br>\$25,000      | A<br>ZARBO<br>95-NI-034                 | \$25,000<br>01/06/95<br>\$25,000  |
| ENVIRONMENT INTERACTIONS WITH SPACECRAFT MATERIALS IN LOW-EARTH<br>ORBIT<br>California State Univ Foundation                 | Shively      | N 12<br>04/05/95<br>\$126,044     | A<br>SHELDON<br>95-NI-035               | \$36,170<br>01/06/95<br>\$36,170  |
| DYNAMICS OF A PASSIVE SCALAR IN A TURBULENT JET<br>Univ of New Mexico  | Truman       | N 12<br>06/06/95<br>\$48,834      | A<br>HART<br>95-NI-036                  | \$20,179<br>15/06/95<br>\$20,179  |
| NON-INTRUSIVE MEASUREMENTS OF THE PERFORMANCE OF ENDOTHERMIC FUEL,<br>SCRAMJET COMBUSTERS<br>North Carolina State University | Gould        | N 12<br>07/06/95<br>\$115,104     | A<br>HART<br>95-NI-037                  | \$20,875<br>01/08/95<br>\$20,875  |
| ENGINEER AND SCIENTIST EXCHANGE PROGRAM<br>Rome Air Development Center   | Kowalchuk    | N 24<br>27/06/95<br>\$163,631     | A<br>ZARBO<br>95-NI-038                 | \$20,000<br>15/08/95<br>\$20,000  |

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| TITLE<br>FUNDING (CONT.)<br>INSTITUTION  | INVESTIGATOR       | TYPE/MONTHS<br>RECEIVED<br>AMOUNT | STATUS<br>PROGRAM MANAGER<br>PROPOSAL # | INITIATE<br>START DATE<br>TOT AMT  |
|--|--------------------|-----------------------------------|---|------------------------------------|
| TOXICANT EXPOSURE BIOMARKERS IN HUMAN BLOOD SAMPLES FROM AIR FORCE PERSONNEL<br>Univ of Wisconsin                                  | Kaprauth<br>Steven | N 36<br>04/04/95<br>\$542,986     | KOZUMBO<br>95-NL-175                    |                                    |
| DETOXICATION ENZYMES AS BIOMARKERS OF TOXIN EXPOSURE<br>Univ of Wisconsin  | Siegel<br>Frank    | R 36<br>04/04/95<br>\$542,573     | KOZUMBO<br>95-NL-176                    |                                    |
| COMPUTER SIMULATIONS OF LOW TEMPERATURE HIGH ENERGY DENSITY MATERIALS<br>Univ of Pennsylvania                                      | Voth<br>Gregory    | N 36<br>04/04/95<br>\$450,000     | BERMAN<br>95-NL-177                     |                                    |
| SYNTHESIS OF AZACUBANES<br>Univ of Illinois - Chicago  | Moriarty<br>Robert | N 36<br>04/04/95<br>\$691,268     | BERMAN<br>95-NL-178                     |                                    |
| THEORY GUIDED SYNTHESIS OF CYCLIC OZONE<br>Univ of Connecticut   | Lynds<br>Lahmer    | N 36<br>04/04/95<br>\$360,000     | BERMAN<br>95-NL-179                     |                                    |
| A STUDY OF THE METABOLISM AND TOXICITY OF SOME MEDIUM MOLECULAR WEIGHT HYDROCARBONS IN FISCHER 344 RATS<br>Wright State University | Serve<br>M. Paul   | N 24<br>04/04/95<br>\$73,293      | KOZUMBO<br>95-NL-180                    |                                    |
| MODULATION OF TESTICULAR PERIPHERAL BENZODIAZEPINE RECEPTORS IN CA DMUM-INDUCED SEXUAL DYSFUNCTION<br>McHenry Medical College      | Das<br>Salil       | N 36<br>05/04/95<br>\$492,837     | KOZUMBO<br>95-NL-181                    |                                    |
| QUANTUM MOLECULAR DYNAMICS SIMULATIONS OF ELECTRONIC PROCESSES IN DOPED SOLID HYDROGEN<br>Univ of California, Irvine               | Serber<br>Robert   | N 36<br>10/04/95<br>\$413,500     | BERMAN<br>95-NL-182                     |                                    |
| BASIC MATERIALS AND FABRICATION STUDIES FOR ADVANCED POLYMER OPTO-ELECTRONICS<br>Univ of Southern California                       | Steier<br>William  | R 24<br>11/04/95<br>\$300,000     | LEE<br>95-NL-183                        | \$149,999<br>15/06/95<br>\$299,999 |

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| TITLE<br>(LINE COUNT)<br>INSTITUTION   | INVESTIGATOR  | TYPE/MONTHS<br>RECEIVED<br>AMOUNT | STATUS<br>PROGRAM MANAGER<br>PROPOSAL # | INITIATE<br>START DATE<br>TOT AMT  |
|--|---------------|-----------------------------------|---|------------------------------------|
| DEVELOPMENT OF QUANTUM DOT MATERIALS FOR OPTICAL DEVICES BY THE<br>SOL-GEL METHOD<br>Univ of California, Los Angeles   | Mackenzie     | R 24<br>11/04/95<br>\$120,000     | A<br>LEE<br>95-NL-184                   | \$60,000<br>01/06/95<br>\$120,000  |
| NOVEL QUANTUM DOT WAVEGUIDE DEVICES BY THE SOL-GEL METHOD<br>Univ of Arizona   | Peyghambarian | R 24<br>11/04/95<br>\$120,000     | A<br>LEE<br>95-NL-185                   | \$60,000<br>01/06/95<br>\$120,000  |
| POLYMER-BASED INTEGRATED PHOTONIC DEVICES FOR HIGHLY PARALLEL<br>OPTICAL INTERCONNECTS<br>Univ of Texas at Austin  | Chen          | R 24<br>12/04/95<br>\$199,998     | A<br>LEE<br>95-NL-186                   | \$99,999<br>01/06/95<br>\$199,998  |
| DEVELOPMENT AND UTILIZATION OF DEVICE QUALITY NONLINEAR OPTICAL<br>MATERIALS<br>Univ of Southern California  | Delton        | R 24<br>12/04/95<br>\$300,000     | A<br>LEE<br>95-NL-187                   | \$149,962<br>15/06/95<br>\$300,000 |
| PROCESSING OF NOVEL CHROMOPHORES FOR ELECTRO-OPTIC APPLICATIONS<br>State University of New York  | Prasad        | R 24<br>12/04/95<br>\$160,000     | A<br>LEE<br>95-NL-188                   | \$79,999<br>01/06/95<br>\$160,000  |
| THE SEVENTEENTH INTERNATIONAL SYMPOSIUM ON ATTENTION AND PERFORMAN<br>CE - COGNITIVE REGULATION OF PERFORMANCE: INTERACTION OF THEORY ..<br>Univ of Michigan | Kornblum      | N 12<br>19/04/95<br>\$35,100      | TANGNEY<br>95-NL-189                    |                                    |
| ST1995 HIGHLY SPECIFIC ENCODABLE COVERT MARKER BASED ON MULTIPLE W<br>AVELENGTH RETRO-LASER PAINT<br>Physical Optics Corporation                             | Spariosu      | N 12<br>24/04/95<br>\$99,990      | HADDAD<br>95-NL-190                     |                                    |
| ST1995 POLARIZATION IMAGER TECHNOLOGY<br>Equivox Corporation   | Wolff         | N 12<br>24/04/95<br>\$100,000     | A<br>HADDAD<br>95-NL-191                | \$100,000<br>01/08/95<br>\$100,000 |
| 1495 GORDON CONFERENCE ON INORGANIC CHEMISTRY<br>Gordon Research Conferences Inc   | Storn         | N 01<br>24/04/95<br>\$6,200       | D<br>DELONG<br>95-NL-192                |                                    |

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TITLE  
FUND ACCT.-D  
INSTITUTIONTHREE COLOR COATED POLYMER LIGHT EMITTING DEVICES BASED ON CONJUGAT  
CO POLYMER OLIGO  
UNIAK CORP.

Gens

INVESTIGATOR

YU

HETEROGENEOUS REACTIONS ON ALUMINUM OXIDE SURFACES MODELING ROCKET  
EXHAUST PARTICLES  
Univ of Colorado

Steven

George

SITU CHARACTERIZATION OF ELECTROCHEMICAL CORROSION PHENOMENA: THE  
EFFECT OF ELECTROLYTE COMPOSITION AND TEMPERATURE ON THE STABILITY  
Utah State University

Greg

Swain

NOVEL PHOTOREFRACTIVE MATERIALS BASED ON SOLUBLE POLYDIACETYLENES  
FOR OPTICAL SIGNAL PROCESSING  
Molecular Technologies, Inc

Lian

Li

ADVANCED PROCESSING OF NONLINEAR OPTICAL MATERIALS TO LOWER PIGTAL  
LING COST, REDUCE OPTICAL LOSS, AND REDUCE DRIVE VOLTAGES IN DEVIC  
RVM Scientific Inc

Robert

Mustacich

8TH INTERNATIONAL SYMPOSIUM ON MICROBIAL GROWTH ON C1 COMPOUNDS

California Institute of Technology

Lidstrom

Mary

HETEROGENEOUS CHEMISTRY IN SOLID ROCKET MOTOR PLUMES

Univ of Southern California

Wittig

Curt

THEORETICAL MODELS OF DAMAGE MECHANISMS FOR ULTRASHORT LASER PULSE  
S IN OCULAR MEDIA  
Florida International University

Gerstman

Bernard

OLFACTORY IDENTIFICATION AND AGING: TRUE DEFICITS VERSUS TASK ARTI  
FACTS  
New York University Medical Center

Corwin

June

TYPE/MONTHS  
RECEIVED  
AMOUNTN 06  
04/05/95  
\$79,857N 36  
04/05/95  
\$334,837N 36  
04/05/95  
\$251,116N 06  
04/05/95  
\$59,775N 06  
05/05/95  
\$60,000N 12  
08/05/95  
\$29,315N 36  
16/05/95  
\$400,918N 36  
16/05/95  
\$633,315N 18  
16/05/95  
\$76,234STATUS  
PROGRAM MANAGER  
PROPOSAL #A  
LEE  
95-NL-193BERMAN  
95-NL-194DELONG  
95-NL-195A  
LEE  
95-NL-196A  
LEE  
95-NL-197D  
KOZUMBO  
95-NL-198BERMAN  
95-NL-199KOZUMBO  
95-NL-200KOZUMBO  
95-NL-201INITIATE  
START DATE  
TOT AMT\$79,857  
15/07/95  
\$79,857\$59,775  
15/07/95  
\$59,775\$60,000  
15/07/95  
\$60,000

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| TITLE   | INVESTIGATOR       | TYPE/MONTHS<br>RECEIVED<br>AMOUNT | STATUS<br>PROGRAM MANAGER<br>PROPOSAL # | INITIATE<br>START DATE<br>TOT AMT  |
|---|--------------------|-----------------------------------|---|------------------------------------|
| EVALUATE NEW NEAR-INFRARED SOLID-STATE LASER MATERIALS  | Dr. J. J. Drososki | N 12<br>16/05/95<br>\$10,000      | A<br>LEE<br>95-NL-202                   | \$10,000<br>16/05/95<br>\$10,000   |
| WRIGHT LAB  | Walter             |                                   |   |                                    |
| HUMAN ACTION PLANNING: REACHING AROUND OBSTACLES  | Rosenbaum          | N 36<br>22/05/95<br>\$605,124     | TANGNEY<br>95-NL-203                    |                                    |
| Pennsylvania State University   | David              |                                   |   |                                    |
| NEURAL MODELS OF SPATIAL ORIENTATION IN NOVEL ENVIRONMENTS  | Grossberg          | R 36<br>22/05/95<br>\$315,248     | TANGNEY<br>95-NL-204                    |                                    |
| Boston University   | Stephen            |                                   |   |                                    |
| BIODEGRADATION OF NITROAROMATIC COMPOUNDS   | Gibson             | R 48<br>22/05/95<br>\$833,669     | KOZUMBO<br>95-NL-205                    |                                    |
| Univ of Iowa  | David              |                                   |   |                                    |
| DEVELOPMENT OF NOVEL PHOTOCONDUCTIVE LIQUID CRYSTALS FOR LARGE AREA<br>A PHOTODETECTORS   | Pollack            | N 24<br>30/05/95<br>\$290,830     | A<br>LEE<br>95-NL-206                   | \$145,000<br>15/09/95<br>\$290,830 |
| Howard University   | Steven             |                                   |   |                                    |
| APPROACHES TOWARD SYSTEMATIC ENHANCEMENT AND DEVELOPMENT OF ORGANIC<br>ELECTRO-OPTIC AND ALL-OPTIC MATERIALS POSSESSING UNPRECEDENTED<br>Univ of Texas, El Paso | Dirk               | N 24<br>30/05/95<br>\$295,675     | A<br>LEE<br>95-NL-207                   | \$148,000<br>15/09/95<br>\$296,000 |
| NOVEL MACROMOLECULAR MATERIALS FOR ELECTRONIC AND OPTICAL APPLICATIONS  | Pang               | N 24<br>30/05/95<br>\$146,060     | A<br>LEE<br>95-NL-208                   | \$146,060<br>15/09/95<br>\$146,060 |
| Clark Atlanta University  | Yi                 |                                   |   |                                    |
| THE ROLE OF MITOCHONDRIA IN THE DETECTION OF INFRARED LIGHT SOURCE<br>BY MAMMALIAN CELLS  | Albrecht-Gushler   | N 36<br>01/06/95<br>\$358,062     | HEDBERG<br>95-NL-209                    |                                    |
| Northwestern University   | Guenter            |                                   |   |                                    |
| THE INFLUENCE OF INHIBITOR IONS AND CONVERSION COATINGS ON LOCALIZED<br>CORROSION OF Al AND Al ALLOYS   | Frankel            | N 36<br>01/06/95<br>\$383,652     | DE LONG<br>95-NL-210                    |                                    |
| Ohio State University   | Gerald             |                                   |   |                                    |

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| TITLE   | INVESTIGATOR       | TYPE/MONTHS<br>RECEIVED<br>AMOUNT | STATUS<br>PROGRAM MANAGER<br>PROPOSAL # | INITIATE<br>START DATE<br>TOT AMT |
|---|--------------------|-----------------------------------|---|-----------------------------------|
| TITLE (CONT.)<br>INSTITUTION  |                    |                                   |   |                                   |
| HETEROGENEOUS CHEMISTRY ON MODEL ROCKET EXHAUST PARTICULATE                                       | Williams<br>Leah   | N 24<br>05/06/95<br>\$293,946     | BERMAN<br>95-NL-211                     |                                   |
| ERI International   |                    |                                   |   |                                   |
| ENHANCING BIODEGRADATION THROUGH CONTROLLED CONJUGATION TO PROLIF<br>ERATE KEY DEGRADATION GENES  | Rittmann<br>Bruce  | N 36<br>06/06/95<br>\$365,484     | KOZUMBO<br>95-NL-212                    |                                   |
| Northwestern University   |                    |                                   |   |                                   |
| NOVEL PHOTOREFRACTIVE AND ELECTRO-OPTIC POLYMERS-RATIONAL DESIGNS,<br>SYNTHESIS AND MECHANISM     | Yu<br>Luping       | R 36<br>07/06/95<br>\$411,042     | LEE<br>95-NL-213                        |                                   |
| Univ of Chicago   |                    |                                   |   |                                   |
| ASYMMETRIC CATALYSIS FOR THE SYNTHESIS OF FERROELECTRIC LIQUID CRY<br>STALLS                      | Zhang<br>Xumu      | N 36<br>12/06/95<br>\$356,388     | LEE<br>95-NL-214                        |                                   |
| Pennsylvania State University   |                    |                                   |   |                                   |
| MECHANISMS OF PHOTOREFRACTIVITY IN POLYMERIC MATERIALS  | Moerner<br>William | N 36<br>16/06/95<br>\$511,336     | LEE<br>95-NL-215                        |                                   |
| Univ of California, San Diego   |                    |                                   |   |                                   |
| CORROSION PROTECTION OF ALUMINUM AND IT ALLOYS USING ELECTROACTIVE<br>POLYMERS                    | Epstein<br>Arthur  | N 36<br>16/06/95<br>\$386,595     | LEE<br>95-NL-216                        |                                   |
| Ohio State University   |                    |                                   |   |                                   |
| DEVELOPMENT OF A LOW LOSS ELECTRO-OPTIC POLYMER AT 800NM  | Bischof<br>William | N 06<br>15/06/95<br>\$60,000      | A<br>LEE<br>95-NL-217                   | \$60,000<br>15/09/95<br>\$60,000  |
| Deacon Research Co  |                    |                                   |   |                                   |
| MECHANISM AND DOSE RESPONSE FOR THE CARCINOGENIC ACTIVITY OF TRICH<br>LOROETHYLENE IN MOUSE LIVER | Pereira<br>Michael | N 36<br>19/06/95<br>\$445,179     | KOZUMBO<br>95-NL-218                    |                                   |
| Medical College of Ohio   |                    |                                   |   |                                   |
| DESIGN, CHARACTERIZATION, AND OPTIMIZATION OF ELECTROOPTIC POLYMER                                | Burland<br>Conrad  | N 36<br>20/06/95<br>\$1,056,273   | LEE<br>95-NL-219                        |                                   |
| IBM Almaden Research Center   |                    |                                   |   |                                   |



| TITLE  | INVESTIGATOR         | TYPE/MONTHS<br>RECEIVED<br>AMOUNT | STATUS<br>PROGRAM MANAGER<br>PROPOSAL # | INITIATE<br>START DATE<br>TOT AMT |
|--|----------------------|-----------------------------------|---|-----------------------------------|
| 1. TITLE (CONT.)<br>INSTITUTION  |                      |                                   |   |                                   |
| ELECTRONIC PROPERTY CONTROL THROUGH REDOX BEHAVIOR OF CONJUGATED POLYMERS<br>Univ of Florida   | Reynolds<br>John     | R 36<br>12/05/95<br>\$473,687     | LEE<br>95-NL-220                        |                                   |
| ELECTRONIC PROPERTY CONTROL THROUGH REDOX BEHAVIOR OF CONJUGATED POLYMERS<br>Univ of Florida   | Reynolds<br>John     | R 36<br>20/06/95<br>\$473,687     | LEE<br>95-NL-221                        |                                   |
| DEVELOPMENT AND EVALUATION OF NONDESTRUCTIVE, HIGH FREQUENCY DIELECTRIC TESTS FOR ADHESIVE BOND DURABILITY<br>Virginia Polytechnic Inst & State Univ | Ward<br>Tom          | N 36<br>20/06/95<br>\$927,198     | LEE<br>95-NL-222                        |                                   |
| 1,2-DITHALOEETHANES AND THE IMMUNE SYSTEM<br>Oregon State University   | Meyer<br>Marian      | N 36<br>22/05/95<br>\$326,676     | KOZUMBO<br>95-NL-223                    |                                   |
| IN VIVO NEUROCHEMISTRY OF THE MAMMALIAN SCN CIRCADIAN CLOCK<br>Kent State University   | Glass<br>J. David    | R 36<br>22/06/95<br>\$483,979     | HADDAD<br>95-NL-224                     |                                   |
| ENZYMATIC BIOREMEDIATION IN THE GAS PHASE<br>Univ of Pittsburgh  | Russell<br>Alan      | N 36<br>22/06/95<br>\$250,640     | KOZUMBO<br>95-NL-225                    |                                   |
| VIBRATIONAL CHARACTERIZATION OF BURIED INTERFACES USING OPTICAL SUH-FREQUENCY GENERATION<br>Colorado School of Mines                                 | Furtak<br>Thomas     | N 36<br>26/06/95<br>\$409,839     | DE LONG<br>95-NL-226                    |                                   |
| VISUAL REPRESENTATION OF OBJECTS AND SETS OF OBJECTS<br>Univ of North Carolina   | Surbeck<br>Christina | R 36<br>30/06/95<br>\$633,998     | TANGNEY<br>95-NL-227                    |                                   |
| UV PHOTOFRACTURATION SPECTROSCOPY OF ATMOSPHERIC CLUSTER IONS<br>Univ of Iowa  | Young<br>Mark        | N 36<br>30/06/95<br>\$503,900     | BERMAN<br>95-NL-228                     |                                   |

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TITLE  
TITLE (CONT.)  
INSTITUTION

METAL AND SEMI-METAL OXIDE CHEMISTRY OF NYOX AND SOX  
Colorado State University

INVESTIGATOR

Bernstein

Elliot

TYPE/MONTHS

RECEIVED  
AMOUNT

N 36  
20/06/95  
1585,040

STATUS

PROGRAM MANAGER  
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95-NL-229

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| FAIR (CONT.)<br>INSTITUTION   |  |                                   |   |                                    |
| TECHNICAL EXCHANGE WORKING GROUP MEETING  | Knobbe   | N 06<br>06/04/95<br>\$10,000      | A<br>KROLL<br>95-NM-218                 | \$10,000<br>01/05/95<br>\$10,000   |
| Competitive Solicitation  | Van  |                                   |   |                                    |
| UNIFIED RETRIEVAL OF CLOUD PROPERTIES, ATMOSPHERIC PROFILES, AND<br>SURFACE PARAMETERS FROM COMBINED DMSP IMAGER AND SOUNDER DATA | Isaacs<br>Atmospheric and Environmental Research | N 06<br>11/04/95<br>\$374,501     | KROLL<br>95-NM-219                      |                                    |
| INTEGRATED CAD SYSTEMS FOR HIGH SPEED VLSI AND PACKAGING<br>PERFORMANCE SYSTEMS   | Cai<br>Univ of California, Santa Barbara         | N 36<br>13/04/95<br>\$1,179,587   | D<br>SCHRECK<br>95-NM-220               |                                    |
| PARALLEL ADAPTIVE METHODS FOR MODELING NONEQUILIBRIUM FLUIDS AND<br>PLASMA  | Wei  | N 12<br>13/04/95<br>\$50,000      | A<br>JACOBS<br>95-NM-221                | \$50,000<br>01/03/96<br>\$50,000   |
| ROBUST VISUAL DETECTION AND RECOGNITION OF MOVING OBJECTS IN REAL<br>TIME   | Burns<br>Teleos Research                         | N 09<br>17/04/95<br>\$100,000     | A<br>WAKSMAN<br>95-NM-222               | \$100,000<br>01/08/95<br>\$100,000 |
| FUSION OF SENSORS THAT INTERACT DYNAMICALLY FOR EXPLORATORY<br>DEVELOPMENT FOR ROBUST, FAST OBJECT DETECTION & RECOGNITION        | Bandera<br>Amherst Systems, Inc.                 | N 12<br>18/04/95<br>\$99,993      | A<br>WAKSMAN<br>95-NM-223               | \$99,993<br>01/08/95<br>\$99,993   |
| A WIDE-ANGLE CAMERA WITH DYNAMICALLY PROGRAMMABLE FOVEAL/<br>PERIPHERAL IMAGING CAPABILITIES                                      | Gardner<br>Silicon Mountain Design Inc           | N 06<br>18/04/95<br>\$79,975      | D<br>WAKSMAN<br>95-NM-224               |                                    |
| NEURAL NET APPROACH TO FUSION OF SENSORS  |  | N 12<br>18/04/95<br>\$93,665      | D<br>WAKSMAN<br>95-NM-225               |                                    |
| DULY Research Inc.  | Witte  |                                   |   |                                    |
| HIGH SPEED, LOW COST PROCESSING FOR FUSION OF SENSORS   |  | N 06<br>18/04/95<br>\$69,000      | D<br>WAKSMAN<br>95-NM-226               |                                    |
| Competitive Solicitation  | Timmons  |                                   |   |                                    |

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| AN ACTIVE VISION BASED SAR-FLIR FUSION ATX SYSTEM FOR DETECTION<br>AND RECOGNITION OF GROUND TARGETS<br>LINK CORPORATION INC | SPINER       | N 06<br>18/04/95<br>\$99,973      | A<br>WAKSMAN<br>95-NM-227               | \$99,973<br>01/08/95<br>\$99,973  |
| TEMPORAL DECISION SUPPORT SYSTEM   | Iodice       | N 09<br>18/04/95<br>\$92,778      | D<br>WAKSMAN<br>95-NM-228               |                                   |
| Competitive Solicitation   | David        |                                   |   |                                   |
| A HIGHLY LEVERAGED MULTISENSOR REAL-TIME OBJECT IDENTIFICATION AND<br>POSE DETERMINATION SYSTEM<br>Cybernet Systems Corp     | Whalen       | N 12<br>18/04/95<br>\$100,000     | D<br>WAKSMAN<br>95-NM-229               |                                   |
| TEMPERATURE SENSORS BASED ON THERMIONIC EMISSION   | Soares       | N 06<br>18/04/95<br>\$100,000     | D<br>WAKSMAN<br>95-NM-230               |                                   |
| Ultrafast Sensors & Application  | Schubert     |                                   |   |                                   |
| HIGH-SPEED PHOTODIODES   | Soares       | N 06<br>18/04/95<br>\$100,000     | D<br>WAKSMAN<br>95-NM-231               |                                   |
| Ultrafast Sensors & Application  | Schubert     |                                   |   |                                   |
| TEMPERATURE SENSORS BASED ON ANGIPOLOK DIFFUSION   | Soares       | N 06<br>18/04/95<br>\$100,000     | D<br>WAKSMAN<br>95-NM-232               |                                   |
| Ultrafast Sensors & Application  | Schubert     |                                   |   |                                   |
| TEMPERATURE SENSORS BASED ON CHARGE CARRIER MOBILITY   | Soares       | N 06<br>18/04/95<br>\$100,000     | D<br>WAKSMAN<br>95-NM-233               |                                   |
| Ultrafast Sensors & Application  | Schubert     |                                   |   |                                   |
| SCHOTTKY BARRIER STRAIN GAUGES   | Soares       | N 06<br>18/04/95<br>\$100,000     | D<br>WAKSMAN<br>95-NM-234               |                                   |
| Ultrafast Sensors & Application  | Schubert     |                                   |   |                                   |
| DYNAMIC IMAGING SENSOR FUSION HANDOFF FROM WIDE AREA TO HIGH<br>RESOLUTION SENSORS<br>Competitive Solicitation               | Ackenhusen   | N 06<br>18/04/95<br>\$98,998      | D<br>WAKSMAN<br>95-NM-235               |                                   |
| Competitive Solicitation   | John         |                                   |   |                                   |

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| DATA FUSION ARCHITECTURES FOR DISSIPULAR SENSORS<br>Competitive Solicitation   | Meyerhoff    | N 06<br>18/04/95<br>\$97,191      | D<br>WAKSMAN<br>95-NM-236               |                                    |
| LARGE AREA ARRAYS OF NANO-ELECTRONIC AND PHOTONIC DEVICES<br>Competitive Solicitation  | Coleman      | N 12<br>18/04/95<br>\$96,403      | D<br>WAKSMAN<br>95-NM-237               |                                    |
| ARTIFICIAL INTELLIGENCE ENVIRONMENT FOR MULTI SENSOR DATA FUSION<br>AEDAR Corp. (Advanced Engineering Design   | James        | N 06<br>18/04/95<br>\$100,000     | D<br>WAKSMAN<br>95-NM-238               |                                    |
| STRESS/FAILURE ANALYSIS SOFTWARE FOR MULTIMATERIAL INTERFACE<br>nWave  | Divakar      | N 12<br>19/04/95<br>\$100,000     | D<br>JACOBS<br>95-NM-239                |                                    |
| STRESS/FAILURE ANALYSIS AT MULTI-MATERIAL INTERFACE OF AERO-SAPCE<br>STRUCTURES BY P-VERSION OF FINITE ELEMENT METHOD<br>Engineering Design & Software Inc | Awal         | N 12<br>19/04/95<br>\$99,933      | D<br>JACOBS<br>95-NM-240                |                                    |
| AN EXPERT SYSTEM FOR STRESS/FAILURE ANALYSIS OF MULTI-MATERIAL<br>INTERFACES<br>Optimal Solutions Inc  | Kuo          | N 12<br>19/04/95<br>\$100,000     | D<br>JACOBS<br>95-NM-241                |                                    |
| MULTIDISCIPLINARY LIFETIME PREDICTION OF MULTICHIP MODULES (CMCM)<br>Competitive Solicitation  | Abdi         | N 06<br>19/04/95<br>\$100,000     | D<br>JACOBS<br>95-NM-242                |                                    |
| THERMAL ANALYSIS OF MULTICHIP MODULES USING DOMAIN DECOMPOSITION<br>AND WAVELET-CAPACITANCE MATRIX<br>Prometheus Inc                                       | An           | N 12<br>19/04/95<br>\$100,000     | A<br>JACOBS<br>95-NM-243                | \$100,000<br>01/08/95<br>\$100,000 |
| FINITE ELEMENT ANALYSIS SOFTWARE FOR MULTI-MATERIAL INTERFACES<br>Competitive Solicitation   | Fish         | N 12<br>19/04/95<br>\$83,283      | D<br>JACOBS<br>95-NM-244                |                                    |

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| PREDICTION AND PREVENTION OF MULTICHIP MODULE FAILURES<br>Harrison and Company   | Harrison     | N 06<br>19/04/95<br>\$99,998      | D<br>JACOBS<br>95-NM-245                |                                   |
| A USER-FRIENDLY COMPUTER PROGRAM TO ANALYZE STRESS/FAILURE FOR<br>MULTI-MATERIAL INTERFACE<br>Design, Analysis and Research Corp | Anemmat      | N 12<br>19/04/95<br>\$99,900      | D<br>JACOBS<br>95-NM-246                |                                   |
| RAD-MAP: A CAD PACKAGE FOR MAPPING RADIATION DOSE IN ADVANCED<br>MICROELECTRONIC PACKAGING<br>Full Circle Research Inc           | Spratt       | N 08<br>19/04/95<br>\$99,824      | D<br>JACOBS<br>95-NM-247                |                                   |
| STRESS/FAILURE ANALYSIS SOFTWARE FOR MULTI-MATERIAL INTERFACES<br>Computational Mechanics Corporation                            | Roy          | N 06<br>19/04/95<br>\$99,968      | D<br>JACOBS<br>95-NM-248                |                                   |
| STRESS FAILURE ANALYSIS FOR MULTIMATERIAL INTERFACES<br>Computational Research and Software Inc                                  | Surana       | N 12<br>19/04/95<br>\$88,477      | D<br>JACOBS<br>95-NM-249                | \$99,978<br>01/08/95<br>\$99,978  |
| STRESS/FAILURES ANALYSIS SOFTWARE FOR MULTI-MATERIAL INTERFACES<br>Engineering software research and Develo                      | Actis        | N 12<br>19/04/95<br>\$99,978      | A<br>JACOBS<br>95-NM-250                |                                   |
| APPLICATION OF VIEWPOINT INVARIANTS TO OBJECT RECOGNITION<br>Univ of Maryland  | Weiss        | N 36<br>24/04/95<br>\$197,554     | WAKSMAN<br>95-NM-251                    |                                   |
| STOCHASTIC CONTROL AND NONLINEAR ESTIMATION<br>Brown University  | Fleming      | N 36<br>24/04/95<br>\$581,440     | JACOBS<br>95-NM-252                     |                                   |
| CONTROL, STABILIZATION AND DYNAMICS OF MECHANICAL SYSTEMS<br>Univ of Michigan  | Block        | N 36<br>24/04/95<br>\$173,548     | JACOBS<br>95-NM-253                     |                                   |

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| FACTS COUNTED<br>INSTITUTION  |              |                                   |   |                                   |
| EFFECTS OF CHARACTERISTIC SCALES AND MAGNITUDES ON SURFACE<br>FORCINGS ON PREDICTABILITY OF MESOSCALE PROCESSES<br>Univ of Cincinnati | Shefiqul     | N 36<br>28/04/95<br>\$189,770     | KROLL<br>95-NM-254                      |                                   |
| SOLVING NONCONVEX PRODUCTION, DISTRIBUTION, AND DESIGN PROBLEMS   |              |                                   |   |                                   |
| Johnson C. Smith University   | Nasuib       | N 48<br>28/04/95<br>\$831,895     | GLASSMAN<br>95-NM-255                   |                                   |
| ANALYSIS OF MOMENTUM EXCHANGE IN SPACECRAFT DYNAMICS AND RELATED<br>MATHEMATICAL MODELS<br>Air Force Institute of Technology          | Hall         | N 36<br>28/04/95<br>\$70,980      | NACHMAN<br>95-NM-256                    |                                   |
| WING STRUCTURAL DESIGN BY GENETIC ALGORITHMS AND HOMOTOPY METHODS<br>Univ of Florida  | Raphael      | N 48<br>28/04/95<br>\$210,266     | GLASSMAN<br>95-NM-257                   |                                   |
| WING STRUCTURAL DESIGN BY GENETIC ALGORITHMS AND HOMOTOPY METHODS<br>Virginia Polytechnic Inst & State Univ                           | Zafer        | N 48<br>28/04/95<br>\$255,698     | GLASSMAN<br>95-NM-258                   |                                   |
| VECTOR-VALUED MALVAR WAVELETS<br>Air Force Institute of Technology  | Suter        | N 04<br>01/05/95<br>\$3,859       | A<br>SJOGREN<br>95-NM-259               | \$3,859<br>01/05/95<br>\$3,859    |
| NONLINEAR METHODS APPLIED TO ATMOSPHERIC PREDICTION<br>Florida State University   | Pfeffer      | N 36<br>02/05/95<br>\$510,000     | KROLL<br>95-NM-260                      |                                   |
| MODEL BASED PROGRAM SYNTHESIS<br>Vanderbilt University  | Sztipanovits | N 36<br>02/05/95<br>\$345,294     | LUGINBUHL<br>95-NM-261                  |                                   |
| SELF CONFIGURING WIRELESS BATTLEFIELD NETWORKS WITH RAPID FAILURE<br>RECOVERY<br>Univ of Massachusetts                                | Ganz         | N 36<br>02/05/95<br>\$479,162     | LUGINBUHL<br>95-NM-262                  |                                   |

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| A FORMAL APPROACH TO SOFTWARE ANALYSIS, DESIGN, AND REUSE<br>NEEDHAM STATE UNIVERSITY  | Chang<br>Patty H.C.      | N 36<br>02/05/95<br>\$386,795     | LUGINBUHL<br>95-NM-263                  |                                      |
| HYBRID-TREFFITZ FINITE ELEMENT MODEL FOR ACCURATE PREDICTION OF<br>STRESS-CONCENTRATION AT MULTIMATERIAL INTERFACES<br>Lohitsa Inc           | Nagesh<br>Suresh         | N 06<br>04/05/95<br>\$70,000      | D<br>JACOBS<br>95-NM-264                |                                      |
| ESTABLISHING A RATIONAL FOUNDATION FOR ENGINEERING MODELS OF<br>TURBULENCE<br>DCW Industries, Inc.   | Wilcox<br>David          | N 36<br>04/05/95<br>\$355,764     | NACHMAN<br>95-NM-265                    |                                      |
| THEORETICAL AERODYNAMICS<br>Rensselaer Polytechnic Institute   | Cole<br>Julian           | N 36<br>04/05/95<br>\$345,044     | NACHMAN<br>95-NM-266                    |                                      |
| EFFICIENCY ENHANCEMENT, SIDEBAND SUPPRESSION, AND OPTICAL PULSE<br>GENERATION IN STRONGLY TAPERED FREE-ELECTRON LASERS<br>Univ of Iowa       | Shattacharjee<br>Amitava | N 36<br>11/05/95<br>\$253,600     | NACHMAN<br>95-NM-267                    |                                      |
| POLYNOMIAL PHASE SIGNALS FOR DIGITAL COMMUNICATIONS<br>Univ of California, Davis   | Friedlander<br>Benjamin  | N 36<br>11/05/95<br>\$299,337     | D<br>SJOGREN<br>95-NM-268               |                                      |
| SOFTWARE ARCHITECTURES FOR DATA FUSION, MONITORING AND CONTROL:<br>AN EXPERIMENT IN LARGE-SCALE ADAPTIVE PARALLELISM<br>Yale University      | Gelernter<br>David       | N 36<br>11/05/95<br>\$1,089,636   | LUGINBUHL<br>95-NM-269                  |                                      |
| MULTICASTING, MULTIPLEXING, AND RESOURCE ALLOCATION FOR REAL-TIME<br>COMMUNICATION IN HIGH-SPEED NETWORKS<br>North Carolina State University | Reeves<br>Douglas        | N 36<br>11/05/95<br>\$150,430     | LUGINBUHL<br>95-NM-270                  |                                      |
| BUILDING BLOCKS FOR CEM<br>Intel Corporation   | King<br>Adrian           | N 27<br>11/05/95<br>\$1,125,000   | A<br>NACHMAN<br>95-NM-271               | \$125,000<br>01/09/95<br>\$1,125,000 |



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| CORE SUPPORT OF THE BOARD ON MATHEMATICAL SCIENCES  | National Academy of Sciences             | Tucker          | N 36<br>16/05/95<br>\$147,000     | JACOBS<br>95-NM-272                     |                                    |
| FORMULATION OF SUBGRID VARIABILITY AND BOUNDARY-LAYER CLOUD COVER<br>IN LARGE SCALE MODELS                        | Oregon State University                  | Mahrt           | N 36<br>16/05/95<br>\$307,670     | KROLL<br>95-NM-273                      |                                    |
| COMPUTATIONAL METHODS FOR THE SIMULATION OF NONCONVEX VARIATIONAL<br>PROBLEMS FOR APPLICATIONS TO SMART MATERIALS | Florida A&M University                   | Turner, Jr.     | N 36<br>16/05/95<br>\$600,000     | A<br>NACHMAN<br>95-NM-274               | \$200,000<br>01/09/95<br>\$600,000 |
| MULTI-RESOLUTION WAVELET METHODS FOR THE SIMULATIONS OF FLAMES AND<br>VLSI PERFORMANCE                            | Univ of California, Santa Barbara        | Cai             | N 36<br>18/05/95<br>\$180,549     | SCHRECK<br>95-NM-275                    |                                    |
| NONLINEAR CONTROL OF FIGHTER AIRCRAFT   | McDonnell Douglas Aerospace              | Wise            | N 36<br>13/05/95<br>\$357,502     | JACOBS<br>95-NM-276                     |                                    |
| IMPROVED PREDICTION AND CHARACTERIZATION OF CONTRAILS AND<br>OPTICALLY-THIN CIRRUS                                | National Center for Atmospheric Research | Heymsfield      | N 36<br>25/05/95<br>\$289,550     | KROLL<br>95-NM-277                      |                                    |
| EFFICIENT SELF-ADJUSTING MECHANISMS FOR DATA MANAGEMENT IN<br>WIDE-AREA NETWORK INFORMATION SERVICES              | College of William and Mary              | Simha           | N 36<br>25/05/95<br>\$158,503     | LUGINBUHL<br>95-NM-278                  |                                    |
| NONLINEAR HOMOGENIZATION IN ELECTROSTATICS AND FINITE ELASTICITY  | Univ of Pennsylvania                     | Ponte-Castaneda | N 24<br>25/05/95<br>\$149,566     | NACHMAN<br>95-NM-279                    |                                    |
| FIRST INTERNATIONAL CONFERENCE ON NONLINEAR PROBLEMS IN AVIATION<br>AND AEROSPACE                                 | Embry-Riddle Aeronautical University     | Sivasubramaniam | N 06<br>25/05/95<br>\$10,000      | NACHMAN<br>95-NM-280                    |                                    |

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| SCALABLE DATA PARALLEL ALGORITHMS AND IMPLEMENTATIONS VISION<br>Univ of Southern California  | Nevelie              | N 36<br>26/05/95<br>\$349,955     | A<br>WAKSMAN<br>95-NM-281               | \$99,988<br>01/09/95<br>\$349,955  |
| PARTICLE-IN-CELL PLASMA CODES IN COMPLEX GEOMETRIES<br>Univ of Alaska  | Swift<br>Daniel      | N 36<br>26/05/95<br>\$352,282     | SCHRECK<br>95-NM-282                    |                                    |
| DEVELOPMENT OF AN ADVANCED IMPLICIT ALGORITHM FOR MHD COMPUTATIONS<br>ON PARALLEL SUPERCOMPUTERS<br>Univ of Washington                       | Shumlak<br>Uri       | N 12<br>26/05/95<br>\$140,647     | SCHRECK<br>95-NM-283                    |                                    |
| IMPROVED AIRCRAFT INTEGRATED FLIGHT CONTROL SYSTEM VIA<br>DECENTRALIZED DE-COUPLING SLIDING MODE CONTROL<br>Univ of Alabama                  | Shtessel<br>Yuri     | N 36<br>30/05/95<br>\$334,388     | JACOBS<br>95-NM-284                     |                                    |
| MULTILEVEL TECHNIQUES IN LARGE SCALE COMPUTATION<br>Univ of Colorado   | McCormick<br>Stephen | N 36<br>30/05/95<br>\$600,774     | SCHRECK<br>95-NM-285                    |                                    |
| HIGH ORDER ACCURACY METHODS FOR LONG TIME INTEGRATION OF<br>NON-LINEAR PDE'S IN COMPLEX DOMAINS: THEORY AND APPLICATIONS<br>Brown University | Gottlieb<br>David    | N 36<br>30/05/95<br>\$879,200     | SCHRECK<br>95-NM-286                    |                                    |
| DESIGN OF HETEROGENEOUS HEAT CONDUCTING AND ELASTIC STRUCTURES<br>WITH IMPERFECT INTERFACE<br>Worcester Polytechnic Institute                | Lipton<br>Robert     | N 36<br>30/05/95<br>\$50,184      | NACHMAN<br>95-NM-287                    |                                    |
| REVIEW THE SEISMOLOGICAL RESEARCH PROGRAMS OF THE U.S. AIR FORCE<br>National Academy of Sciences   | Benson<br>William    | N 18<br>31/05/95<br>\$150,000     | A<br>DICKINSON<br>95-NM-288             | \$150,000<br>01/07/95<br>\$150,000 |
| NUMERICAL METHODS FOR SOLIDIFICATION PROCESSES IN MATERIALS<br>SCIENCE<br>Univ of California, Berkeley                                       | Strain<br>John       | N 36<br>06/06/95<br>\$121,966     | SCHRECK<br>95-NM-289                    |                                    |

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| DECENTRALIZED SIGNAL DETECTION FOR DEPENDENT SENSOR OBSERVATIONS<br>Lehigh University  | CLUM<br>Rick        | N 36<br>06/06/95<br>\$233,058     | SJOGREN<br>95-NM-290                    |                                   |
| COMBINED ASYMPTOTIC AND NUMERICAL ANALYSIS OF TRANSONIC WIND<br>TUNNEL WALL INTERFERENCE<br>Rockwell International, Science Center | Malmuth<br>N        | N 36<br>06/06/95<br>\$374,338     | NACHMAN<br>95-NM-291                    |                                   |
| TRIGGERS IN MOBILE DISTRIBUTED SOFTWARE SYSTEMS FOR MONITOR-AND-CONTROL<br>Univ of Illinois - Chicago                              | Wolfson<br>Ouri     | N 36<br>06/06/95<br>\$572,409     | LUGINBUHL<br>95-NM-292                  |                                   |
| INTERNATIONAL STATISTICAL CONGRESS - INTERFACE - SYDNEY<br>Univ of Georgia   | Billard<br>Lynne    | N 12<br>06/06/95<br>\$61,110      | D<br>SJOGREN<br>95-NM-293               |                                   |
| FORMAL METHODS FOR SECURITY IN DEPENDABLE DISTRIBUTED SOFTWARE<br>Univ of Missouri   | McMillin<br>Bruce   | N 36<br>09/06/95<br>\$371,612     | LUGINBUHL<br>95-NM-294                  |                                   |
| DISTRIBUTED MULTIMEDIA DIRECT-SEQUENCE CDMA WIRELESS NETWORKS<br>Northwestern University   | Honig<br>Michael    | N 36<br>12/06/95<br>\$189,997     | SJOGREN<br>95-NM-295                    |                                   |
| GEOMETRY AND DIRECTION DETERMINATION<br>Carnegie-Mellon University   | Moura<br>Jose M. F. | N 36<br>14/06/95<br>\$297,679     | SJOGREN<br>95-NM-296                    |                                   |
| STUDIES ON SHOCK WAVE, DISPERSIVE WAVE INTERACTIONS AND SONIC BOOM PROPAGATION<br>Univ of Southern Cal -- School of Eng            | Newton<br>Paul      | N 36<br>14/06/95<br>\$329,332     | NACHMAN<br>95-NM-297                    |                                   |
| INTERACTIVE OPTIMIZATION IN OBJECT ORIENTED SCHEDULING SYSTEMS<br>Columbia University  | Pinedo<br>Michael   | N 36<br>14/06/95<br>\$240,000     | GLASSMAN<br>95-NM-298                   |                                   |

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| TITLE<br>(CONT.)<br>INSTITUTION   | INVESTIGATOR           | TYPE/MONTHS<br>RECEIVED<br>AMOUNT | STATUS<br>PROGRAM MANAGER<br>PROPOSAL # | INITIATE<br>START DATE<br>TOT AMT |
|---|------------------------|-----------------------------------|---|-----------------------------------|
| MULTISTRATEGY LEARNING IN COMPUTED VISION<br>George Mason University  | Michalski<br>Ryszard   | N 36<br>15/06/95<br>\$399,823     | WAKSMAN<br>95-NM-299                    |                                   |
| PROBABILISTIC INPUT/OUTPUT AUTOMATA: TOWARD COMPOSITIONAL ANALYSIS<br>OF PROBABILISTIC BEHAVIOR AND DELAY IN DISTRIBUTED SYSTEMS<br>State University of New York<br>Schoika | Scott                  | N 36<br>19/06/95<br>\$416,877     | LUGINBUHL<br>95-NM-300                  |                                   |
| NEW ROBUST ESTIMATION/DETECTION TECHNIQUES WITH APPLICATIONS TO<br>WIRELESS CDMA COMMUNICATIONS<br>Ohio State Univ Research Foundation                                      | Mitra                  | N 36<br>19/06/95<br>\$109,257     | SJOGREN<br>95-NM-301                    |                                   |
| MATHEMATICAL PROBLEMS IN IMAGING, STATISTICAL MECHANICS AND<br>RELATED TOPICS<br>Univ of California, Berkeley   | Grunbaum<br>F. Alberto | N 36<br>19/06/95<br>\$958,597     | NACHMAN<br>95-NM-302                    |                                   |
| SCALAR AND VECTOR WAVELET BASED LES FOR TURBULENT NONPREMIXED AND<br>PREMIXED COMBUSTION<br>Univ of Houston   | Zimin<br>Valery        | N 36<br>19/06/95<br>\$425,326     | NACHMAN<br>95-NM-303                    |                                   |
| REASONING UNDER UNCERTAINTY<br>IBM Almaden Research Center  | Halpern<br>Joseph      | N 12<br>20/06/95<br>\$76,995      | WAKSMAN<br>95-NM-304                    |                                   |
| LOGISTICS WORKSHOP<br>Wright Lab  | Chuang<br>Fred         | N 07<br>22/06/95<br>\$20,000      | A<br>GLASSMAN<br>95-NM-305              | \$20,000<br>01/07/95<br>\$20,000  |
| DEVELOPMENT OF GENETIC TYPE CODES FOR RANDOM FUNCTIONS TO PERFORM<br>DIRECT FUNCTIONAL SIMULATION OF TURBULENT FLOWS<br>Univ of Houston                                     | Jeong<br>Jinhee        | N 36<br>22/06/95<br>\$463,393     | SCHRECK<br>95-NM-306                    |                                   |
| A NOVEL FRAMEWORK FOR LOCAL OPTIMIZATION USING LINEAR BOUNDING<br>FUNCTIONS WITH APPLICATIONS<br>Univ of California, Davis  | Chang<br>Ysu-Shuan     | N 36<br>26/06/95<br>\$304,563     | GLASSMAN<br>95-NM-307                   |                                   |

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TITLE  
TITLE ACCOUNT-0  
INSTITUTION

MODELING OF PHYSICAL PROCESSES  
Univ of Illinois

INVESTIGATOR

Duckworth

John

ACTIVE STALL CONTROL OF MULTISTAGE COMPRESSION SYSTEMS

Univ of Maryland

Abed

Eyad

FINDING ALL SOLUTIONS OF NONLINEARLY CONSTRAINED SYSTEMS OF  
EQUATIONS VIA GLOBAL OPTIMIZATION  
Princeton University

Floouides

Christodoulos

THE TEAM DEPENDABLE DISTRIBUTED SYSTEMS RESEARCH PROJECT

Univ of California, San Diego

Cristian

Flaviu

| TYPE/MONTHS<br>RECEIVED<br>AMOUNT | STATUS<br>PROGRAM MANAGER<br>PROPOSAL # | INITIATE<br>START DATE<br>TOT AMT |
|-----------------------------------|---|-----------------------------------|
| N 36<br>25/06/95<br>\$190,340     | NACHMAN<br>95-NM-308                    |                                   |
| N 36<br>26/06/95<br>\$311,921     | JACOBS<br>95-NM-309                     |                                   |
| N 36<br>27/06/95<br>\$286,219     | GLASSMAN<br>95-NM-310                   |                                   |
| N 36<br>29/06/95<br>\$788,267     | LUGINBUHL<br>95-NM-311                  |                                   |